

The National Locksmith®

TheNationalLocksmith.com

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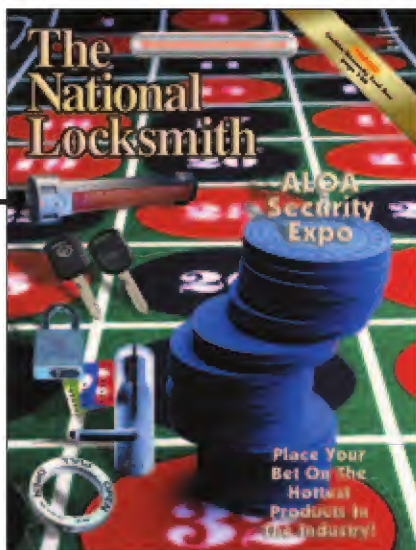


ALOA Security Expo



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On The Cover...



Las Vegas, Nevada is the host city for this year's ALOA Security Expo, featuring such products as the Ilco Solitaire LearnLok, American NFL Padlocks, AABLE Quick Out trunk release, Strattec PATS III Keys and the Von Duprin Guard-X alarmed lock. It's sure to be a high stakes affair.

Publisher Marc Goldberg

Editor Greg Mango

Art Director Jim Darow

Production Director Edgar Shindelar

Technical Editor Jake Jakubowski

Senior Writers

Sal Dulcamaro CML, Michael Hyde, Dale Libby CMS, Dave McOmie, Sara Probasco

Contributing Writers John Blankenship,

Tony Blass, Joe & Dee Bucha, Carl Cloud, Ron & Chris Curry, Richard Allen Dickey, Steve Gebbia, CML, Giles Kalvelage, Jim Langston, Tom Lynch, Tom Mazzone, Don Shiles, Robert Sieveking

Director of Sales & Marketing

Jeffrey Adair

Advertising Account Manager

Debbie Schertzing

Circulation Manager Tom Dean

Accounting Manager Sheila Campo

Production Assistants Kim Fryer
Dave Krofel

Administrative Assistants Sean Selby

Jeffrey Thompson

Shipping Manager Daniel H. Miller

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COMMENTARY



A Very Close Call!

He looked me in the eye, and I returned the stare. Then he drove away. Quickly.

It's not often that I pop into the office at 11 p.m. on a Saturday night. However, I did so late last month when I was passing by. I remembered I had forgotten to feed my birds. When I got here, the office park was almost deserted. Except for the car idling with his lights off in front of our office.

I thought this was somewhat odd, and I had a twinge of regret that I hadn't brought my Doberman with me that evening as I usually do. However, I walked up to the front door, knowing there were eyes on my back.

I had the key to the building in hand, but when I got within ten feet of our glass storefront type door, I froze. That's when I turned to look at the man in the driver's seat. And that's when he drove away, quickly.

You see, the front door had no cylinder in it. Both the high security cylinder and anti-wrench guard were removed entirely from the door. As the car drove away, I managed to get a partial read on his plate. Then I locked myself in my car and called the police.

Within moments, a police dog had gone through the building and confirmed that no one was inside. When the policeman and I walked through the offices together, my heart was in my hand. I expected the worst. Possibly an empty office.

You can imagine my relief when I discovered that nothing to the eye was missing. That's when we took a look at the alarm system. The door to the alarm panel had been peeled back, and all the internal wires were neatly clipped. And it turns out that the phone lines outside the building had been cut also.

Apparently, the driver in front must have been a lookout, just about ready to call in his

cohorts to empty out the building. And that's just when I showed up. So we got lucky. Really lucky. So far, the partial plate has not yielded a likely suspect, and the detective say it probably won't. No fingerprints were found. The guys were good.

Quickly we replaced the cylinder with a much beefier anti-wrench guard plate. The alarm has been re-done and without going into details, it's much better now. It's clear we were the target for a professional burglary team. Yes, we have a lot of computers here, but I believe the burglars were intrigued by the idea that we'd have cool locksmith stuff here as well.

Learn a little from our example and take a look at your own security today. Let's make sure all the cobbler's children have shoes.

Fortunately, among the products not stolen in the incident were Dave McOmie's new safe software CD sets. Be sure to take a look at page 171 if you'd like your computer to be the best safe opening tool you can ever have. And if you'd like to learn right from the master himself, you can attend a Dave McOmie Penetration Party coming to a city near you. See page 73 for details.

Marc Goldberg



Have questions? Want free technical help?
Free Locksmith Forums!

www.TheNationalLocksmith.com

Marc Goldberg
Publisher

July 2000 • 5

Mango's MEGA Message

BREAK IN!

Even though we as locksmiths all deal with home, business, industrial, institutional, vehicle and personal security on a daily basis, we never think that *we* may be a victim ourselves. Well, as you may have already read in Marc's Commentary, *we* at *The National Locksmith* were. Had things gone the way the perpetrator of this crime planned, we could have been dealing with a serious disaster and suffered tremendous loss. There is also a good chance you would not be reading the magazine you are currently holding at this time. As you are about to learn, given the circumstances and turn of events, we were very, very fortunate.

It was 11:00 p.m. on May 13, a balmy Saturday evening. Marc just happened to be in the neighborhood of the office and on a whim, decided to stop in to feed his birds. He has a Parakeet and a Cockatiel in his office, which in my opinion do little more than make a mess, but don't tell Marc that.

Normally, Marc would be with his running partner and buddy, Diablo — a 110 lb. Doberman — but on this evening he was alone. As he arrived at the office and approached the front door, he immediately noticed a gaping hole where an ASSA mortise cylinder normally resided. His immediate reaction was "*That #!#!* darn Greg*" (I'm being kind here, because I believe I was called a few unprintable expletives.) You see, over the years we have installed, uninstalled, assembled and



Greg Mango

Greg Mango
Editor



Mango's Message

disassembled every piece of hardware on this building for article applications at one time or another. Thus the reason for Marc's first reaction. He assumed that I had removed the door cylinder for an article photo shoot and forgot to replace it.

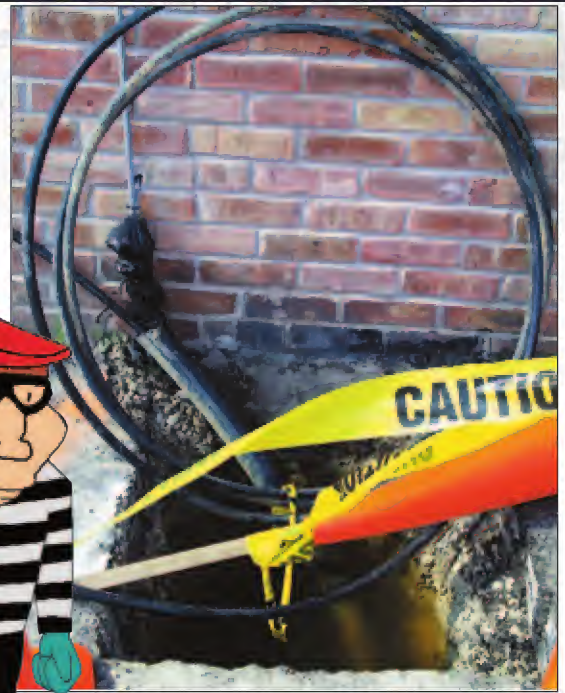
Suddenly a cold chill engulfed him and his instinctive defense mechanism — the hair on the back of his neck — (well maybe not in Marc's case) but something told him that this was not the work of his editor. He knew something nefarious had occurred. He immediately reached for the cell phone attached to his belt, called the police and rather than enter the building alone, he headed back to his vehicle. While doing so, he noticed someone sitting in an old Cadillac Fleetwood Brougham parked in front of the building next to us. Marc made eye contact with the driver and got a partial of the license plate before the driver quickly drove away. Marc locked himself in his vehicle and waited for the police to arrive.

The police soon arrived with a K9 unit to flush the building before entering. As it turned out, no one was in the building and the initial damage assessment and property loss seemed minimal. One piece of equipment that was destroyed was the alarm panel. The control box door was pried open and all the wires were cut, indicating that someone definitely entered the building. The question then was, why wasn't a signal sent to the alarm monitoring station that the alarm was triggered? The answer was uncovered when the alarm representative arrived and an exterior survey was taken. The main phone line trunk outside the building was cut, preventing an outgoing signal.

It wasn't until the next day that all the evidence was gathered and a full assessment of what actually occurred was determined. As I said earlier, given the circumstances and turn of events, we were very, very fortunate. Other than a missing ASSA mortise cylinder, destroyed alarm panel and a cut phone line trunk, we suffered no other property loss. None! How lucky is that? The reason why nothing was taken, was because Marc arrived as the burglary was in progress. Preparations were being made by the perpetrator of this crime when Marc unexpectedly interrupted. This is what we assess happened.

The building was surveyed for the presence of an alarm, the phone trunk location, probable alarm panel location and security hardware. Once that was determined, a plan of attack was imposed.

All windows have security bars except for the front. Over the front door there is an alarm siren and strobe light. That box was filled with "StuffIt" expanding foam in the attempt to silence it. Access to it was achieved with the aid of a wire spool used to stand on left at the side of the building.



The front door is a standard aluminum glass door with an Adams Rite swing bolt lock. It was fitted with an ASSA mortise cylinder protected by a hardened cylinder guard. The back door is a solid steel door fitted with a Yale Unit lock. It was also fitted with an ASSA mortise cylinder and hardened cylinder guard. The back door would have been much more difficult to defeat, so he attacked the front door, managing to twist out the lock cylinder and guard, leaving evidence of the occurrence.

The phone line is buried underground in the back of the building. The phone line runs to the back of the building at the foundation and then inside. Knowing where the phone line enters the building would also indicate the most logical position of the alarm panel. The phone line was taken out, eliminating the possibility of an alarm signal transmission via a land line.



Mango's Message

After the phone line was taken out, the perpetrator entered the building through the front door, ran straight through the building to the back wall and pried open the alarm panel door secured with a Medeco cam lock. All the wires going to the board were cut and the bandit exited the building through the front door. This is where Marc enters the picture.

Since there was no one in the building when Marc arrived, we surmise that if it was the driver of the Cadillac (whom the police are now looking for) that did perform this feat, he was probably sitting there with a hand held police scanner to see if an alarm transmission did in fact get sent and if anyone would respond. An alarm wasn't sent, but someone did unexpectedly arrive. In that one-in-a-million chance at 11:00 on a Saturday evening, something prompted Marc to stop at the office and feed his birds, nullifying what could have been a very unpleasant situation. What are the odds of that?

Security has since quadrupled around here. I now have to give blood, pluck a hair for a DNA sample, sing a song for voice recognition, have my retinas and palm scanned and enter a personalized access code before I can enter, or exit, the building. As an added precaution (as if that wasn't enough) Marc posted home made signs around the building of Diablo with a warning that is sure to scare off anyone even considering an unscrupulous act.

Over this same weekend, Marc posted digital movie images of the office and his devoted, loving, and might I add, hard working staff - as well as myself - on our web site. As only Marc can do it, he gave the staff *zero* notice of this occurrence, managing to capture everyone at their finest moments. One of which prompted the following letter from a viewer of this mini series "TNL Action Videos":

"Hey Marc, I just finished going through the "TNL Action Videos." You did a nice job!! The car openings with "Mike Hyde" were a nice touch...as also was the "guided tour" of the office. But I must say...Greg Mango has got to eat more mangos, (and wholesome fruits)...and stay away from the meat group!! (Ha ha). Just kidding Hercules...um...err...I mean Greg. Well, keep up the good work. You guys are doing a great job staying on the "Cutting Edge"!!! And thanks again for the "personal" inside view."

**Raymond
California**



Wasn't that a lovely letter? Thanks Raymond! Or rather, thanks Marc!

As you can imagine, my boss thought that was just the funniest thing. Practical jokes are commonplace around here and at the hands of your publisher, I am often the brunt of them. He just loves it when he can make himself look better than I.



As I was leaving the office that evening, I noticed Marc's visual scare tactic of Diablo on the door. Suddenly a light bulb went off and my opportunity to get even occurred. I printed out Marc's picture and replaced Diablo's with his at every location around the building.

The next morning when Marc arrived, he failed to see the humor. He walked in and blew a gasket at everyone in his wake. He was furious. Unfortunately — or fortunately — I wasn't in the office yet and missed the Goldberg furor. It's probably a good thing because I would have just made matters worse by laughing at him, and I'd probably be holding a sign about now saying "Will work for food."

When Marc found out I was the culprit of this practical joke he still wasn't happy, but he knew deep down I owed him one. By the next day we made amends. I'm happy to report that all is calm at the ranch... for now!

When it's all said and done, no one is impervious to an attack. However, through layers of security the negative effects can be greatly reduced. Layers of security are like bureaucratic red tape. The more there is, the less likely someone will cut through it. **TNL**

Letters

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length.

A Potential Glitch

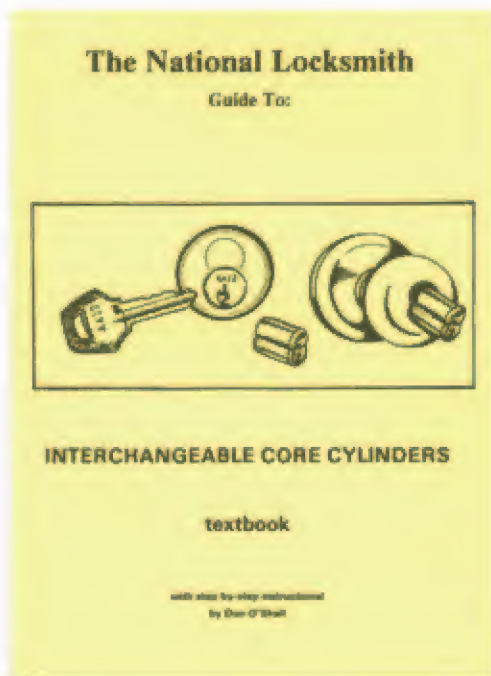
Jake Jakubowski's otherwise excellent article in the April, 2000 issue, "Just Replace The Door", advocates installing new higher-security doors as a profitable sideline, but he fails to mention one potential glitch. Many local governments require a building permit even for something as mundane as hanging a new exterior door! The same would be true for the minor doorframe repairs shown in the article. Such requirements are quite obviously attempts at getting

extra revenue, as opposed to serving any real purpose, but anyone who ignores them does so at his/her peril. In addition, some localities might restrict who can do such work, perhaps even requiring a contractor's license. Forewarned is forearmed.

*Ed Krampitz
Virginia*

Paranoia is Out There

I'm sure I'm not the only locksmith who gets calls from people who have a very loose grip on reality. Three weeks ago an elderly woman wanted her locks changed, so



Interchangeable Core Cylinders

Covers all this...

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- Best A4
- Corbin X Removable Core
- Corbin Z Removable Core
- Russwin Removable Core
- Emhart System 70 Removable Core
- Sargent Removable Core
- Schlage, Yale, Lockwood
- Medeco Removable Core

CLICK HERE TO LEARN MORE



#ICB - 1

I went to her house to do the job. She explained to me that her neighbor somehow got her key, entered her house at night, gassed her and then changed the pipes on her water heater. He also installed a pipe through her roof and was responsible for her car stalling at intersections. She also believes that he burrowed tunnels under her basement and uses the Internet to make her light bulbs burn out prematurely.

I re-keyed her locks to give her some peace of mind, but yesterday, she called back because the neighbor is getting in and gassing her again. I

told her to call the police, but it seems they told her to call me! I don't want to take any more of her money.

Over the years I have noticed that the women are afraid of their neighbors or ex-son-in-laws. The old men worry about government agents. I have one old guy who wants his locks changed every 3 months, to keep the FBI from stealing his inventions. I don't know what to do with these people. I always start out by trying to give them a little peace of mind, but of course, that's impossible. It's just a matter of time before their imagination cooks up

something else (or the same thing over and over). How do you handle people like this? *Donald S. Mohan*
E-mail

I'll be There Too

In response to Donald Mohan's letter, we all have, or will run into this same situation. The latest reports say that by 2011, 66% of the people in the United States will be 65 or older! And at that time we will be turning 65 at the rate of 10,000 a day. (I am an early baby boomer and will turn 65 early in 2011) that's why I paid attention to this. Doctors have extended our physical health - but lag behind in mental health, thus I expect the problem to grow.

About two months ago, I received a call from a policeman who was calling for an elderly lady from whom he was taking a burglary report. She said her neighbor came in her house and stole her keys. She wanted the house re-keyed. I re-keyed the house.

A week later she called and said that "he" had picked the locks and stolen her keys again. I could cut keys from my notebook, but I was not sure if she was making this up, so I re-keyed it again.

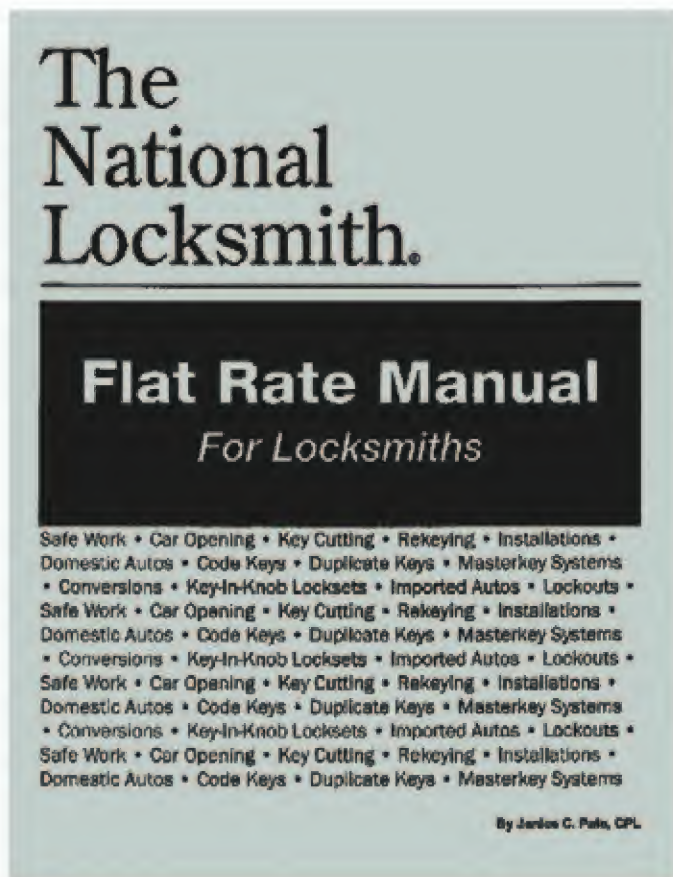
Two weeks later an estate manager called and wanted me to re-key the house of his client. I recognized the address. I asked him if a neighbor had stolen her keys, he said yes and asked how did I know. We talked a while and then called the police. All three of us came to the same conclusion.

We contacted the local Community Mental Health Services. They have a program where they send people (like, retired citizens) over just to talk, lend assistance and if need be a friend. This lady was very lonely so they got her involved in some community activities and social outings etc. If there is a mental illness problem (other than loneliness) they would see that she gets the care she needs.

Check your local mental health services. In this state we have VERY strong feelings about the government sticking its nose in our lives, but there are times when it is appropriate. Of course this is just one solution to just one of the many similar problems we deal with. Hope to hear other solutions.

Gary Carpenter
E-mail

Flat Rate Manual



Now you can easily "Price for Profit!"

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#FRM - 1

SHOWSTOPPERS

Automotive

Quick Out Emergency Trunk Release



CIRCLE NUMBER
323

Frank Markisello of Aable Locksmiths has designed a device, which can be installed on virtually any trunk lock, to open the trunk from the inside in seconds. So simple, that a small child can open it with just the pull of a finger. This device can solve the problem of trunk entrapments. It can be installed by the owner or by any locksmith in 15 minutes or less. This tool can save a child's or an adult's life. **BOOTH #339**

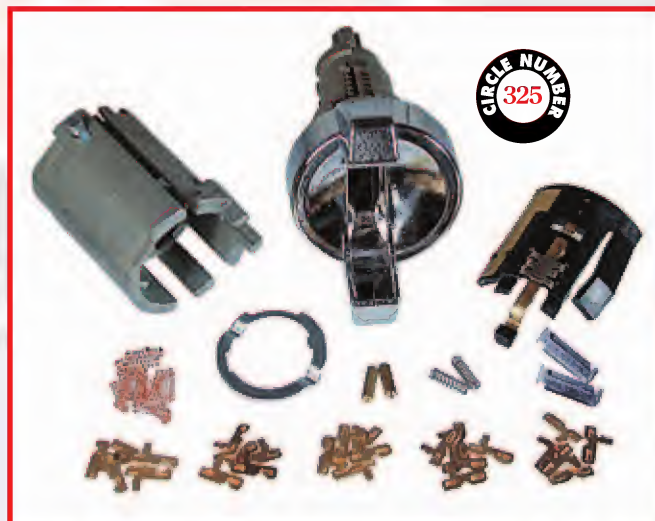
The Buster

The Buster is an automotive steering wheel lock buster. The company says the tool allows the locksmith to "bust off" The Club and other similar steering wheel lock devices in 60-seconds or less. Made

of eight pounds of solid cast iron, the tool consists of a custom shaped bow, large hook, bronze bushing and a wing nut that provides leverage and support. To operate, attach the tool snugly to the locking device and begin turning the wing nut. Within 60-seconds, the locked bar will bend and snap in half. The Buster does not touch the steering wheel, steering column or come near to the airbag.

BWD Premium Pack Lock Kits

BWD's Lockcraft brand Premium Pack Lock Kits come complete with

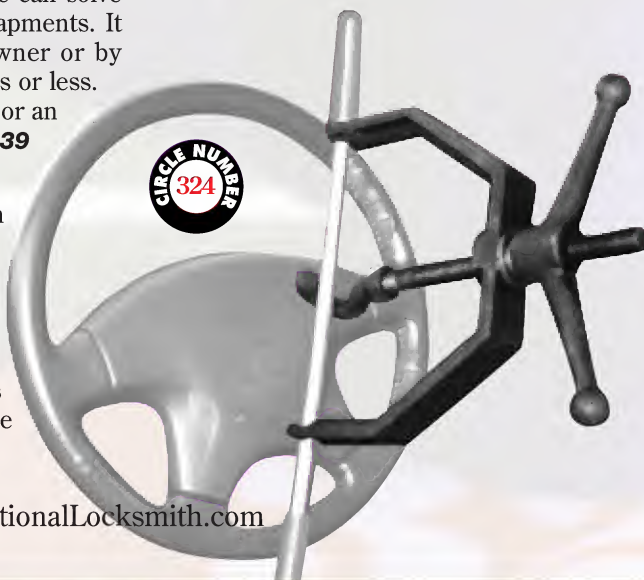


lock, lock components, tumblers, tumbler springs, and tumbler caps. Just add the customer's existing key and you have a quality coded lock without purchasing a service kit. While costing a bit more than the coded and uncoded cousins, Lockcraft Premium Pack Kits reduce inventory and eliminate the unwanted purchase of seldom used pinning kits. No more running out of parts while on the job. All this while meeting the keying needs of every customer.

BOOTH #604

The Car Openers New Determinators

The Car Openers now has 29 Determinator tools, two of which are the Toyota TR47 and the BMW. The Toyota TR47 Determinator works on the X217 (TR47) key blanks covering most of the Toyota's from 1992 to the





present. You can originate a key in about 10-minutes without having to disassemble a lock. Locksmiths can even use it as a car opening method for the hard to open vehicles like the Camry and Avalon. The BMW Determinator works on the X59 (BMW2) and the X144 (BMW3) keyways. No longer will locksmiths turn these calls away. In a quick, simple and reliable way the key can be made. A free training video is also included.

Ultra Jack 2000



The Ultra Jack 2000 by High Tech Tools is designed to unlock vehicles quickly and safely in emergency situations when conventional car opening methods just won't do. Included is a special door jack tool made of space age polymers, door pivots, set of seven special rods, rod guards, strip savers, a special strap tool and strip tools, a super wedge system carrying case and instructional video.

BOOTH #253

High Tech Lockout Sets

The High Tech Tools Car Opening System unlocks virtually every vehicle from 1979 to 2000 the manufacturer says. Includes 40 tools, All Specialty Tools, Remote Access System, Domestic Opening Manual, Import Opening Manual, Information Manual, Side Airbag Manual, Door Panel Manual, Transponder Manual (over 200 pages of photos, diagrams, instructions and in-



formation), Strip Savers, Super Wedge System, and the Opening Video Seminar all packed in a deluxe hard case.

BOOTH #253

Power Wedge™ from HPC



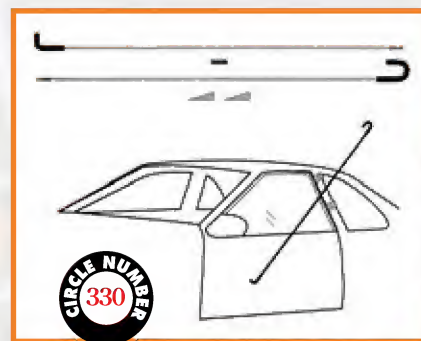
HPC's new Power Wedge™ is a revolutionary auto-entry device designed to aid in opening some of the most difficult vehicles you come across. Insert the rubber-coated tips of the Power Wedge between the vehicle's door and frame at the top of the door. Turn the adjustment knob

and watch as the door slowly opens giving you ample room to insert a car-opening tool to open the vehicle safely from the inside.

BOOTH #509

Lock Technology 6' Super Jimmy Kit

The Super Jimmy allows you to open the vehicle with the door handle, lock button or the electric lock switch. It opens most vehicles with no disconnection of linkage or airbag activation problems, comes with two plastic wedges for safe and easy use,



and it easily bends to fit every vehicle design and breaks down for easy storage.

New Edition of Fast Facts



Sieveking Products Co. introduces the 2000 third edition of Fast Facts, the encyclopedic index of auto and motorcycle key making facts. Fast Facts lists nearly 2700 models (1960-2000), with 356 auto key plates and 119 new cycle key plates. The third edition is available in the wire bound pocket size and the 6"x11" desk size. Fast Facts has added new ITL numbers, Pack-a-Punch information, HPC CodeMax numbers, Aero & Baxter Try-out Keys and Jet key numbers. An expanded "Help" section includes all the latest transponders, the newest key numbers, code series and step-by-step transponder originate, duplicate and emergency start methods.

BOOTH #142

Strattec Offers PATS III Keys

The 2000 Ford Taurus and 2000 Mercury Sable PATS III keys are now available only from Strattec Security Corporation, the original equipment manufacturer. The Taurus key, part



number 599114, and the Sable key, part number 599179, can be ordered from your authorized Strattec distributor. **BOOTH #521**

Quick Entry Car Opening Manual on CD-ROM



Tech-Train Productions Quick Entry Manual is now available on CD-Rom. The electronic Quick Entry Manual provides complete opening information for both domestic and imported vehicles made from the early 1980s up to 2000. In addition it covers many of the 2001 vehicles such as the PT Cruiser, Ford Escape, Chevrolet Avalanche and more. **BOOTH #237**

Door Hardware

Abloy Disklock PRO



The patented Abloy Disklock PRO rotating disc cylinder with up to two billion keyways includes a disc controller and has no springs or pins to wear, jam or weaken. The cylinder, which is UL-437 listed and is the most complex GGMK system available today, is virtually pickproof, the manufacturer claims. One key can open all products, including a complete line of maximum security tubular deadbolts, hardened steel mortise and rim cylinders, key in knob/lever retrofit cylinders, padlocks, cam locks, cabinet locks, switch locks and more. **BOOTH #747**

Boyle & Chase Carrying Guard-X Exit Alarm Lock



Now in stock at Boyle &



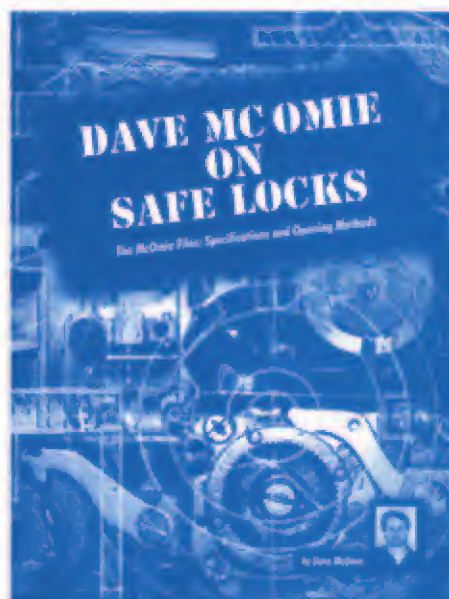
Chase is Von Duprin's new Guard-X Exit Alarm Lock. Guard-X provides secure, alarmed code-compliant protection for emergency exits. Guard-X readily identifies the door as an emergency exit and secures the opening against unauthorized use. Its heavy-duty design protects the

internal mechanism and helps resist tampering or vandalism from inside the door. Boyle & Chase stocks all three available finishes: aluminum, dark bronze and black.

Kaba Peaks Adds New Products

Kaba Peaks has added two new removable cores to their already extensive line of patented key control products. Peaks cores that fit Sargent and Schlage removable core housings are now available. They join Peaks cores that fit Medeco, Corbin Russwin and Yale housings. The patented line also includes interchangeable cores, mortise and rim cylinders, and a

Dave McOmie on Safe Locks



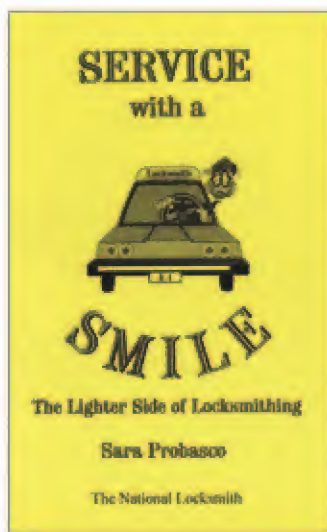
Almost 300 pages of information, photographs and illustrations give you every scrap of information about a huge variety of safe locks.

CLICK HERE TO LEARN MORE



#DMSL - 1

Service with a Smile



To tickle the funnybone
of anyone in a service
oriented business.

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#SWS



group of key in knob cylinders able to retrofit hundreds of knob, lever and deadlock applications using one key.

BOOTH #516

Murray Enterprises Screwless Door Loop

The new Screwless Door Loop provides a quick, easy and cost saving method for installers to use. Simply drill a 1/2" hole and snap the unit into place, then snap the cover on. This patent pending design allows the door loop to move when the door moves. The standard length is 18" x 3/8" diameter.

BOOTH #846



Mul-T-Lock I/Core

Mul-T-Lock's high security replacement core for Best-type interchangeable core locks will work with the entire Mul-T-Lock product line without the need for a new keyway, key cutting machine or pin kit.

BOOTH #421

New Hinges from Stanley

A new line of Stanley branded hinges for steel entry doors has been

developed by Stanley Hardware. The line includes both specialty hinges and adjustable spring hinges. The specialty hinges are 4" x 4" x .098" gauge hinges and are packaged 100 handed pairs (same hand) per carton. Bulk unassembled



hinges will be packaged 150 two prong leaves to a carton and 150 three prong leaves and pins per carton. Hole patterns for the new line of hinges correspond to Benchmark, Castlegate and Therma Tru hinge preps. A generic "General Hole" hinge, with its own distinctive hinge prep, has also been developed.

Surelock McGill Ltd. Locking & Bolting Devices

A specialist British manufacturer is introducing high quality safety and security multiple bolting/locking devices and associated hardware to the US market. The range, suitable for a wide variety of applications, includes devices for emergency/fire exits, deadlocking and access control. Products run the gamut from access control and monitoring devices such as the



company's AC line, to ones appropriate for fire exits and delayed exit systems that are ideal for retail establishments. The company's well engineered, reliable and durable AC range of access control apparatus will add strength and security to any door.

Electronic Locksets

ACSI UL Listed for Corbin Russwin Mortise Locks



Architectural Control Systems, Inc. Series 1500 Electric Lock Modification is now UL listed for the Corbin Russwin Series ML 2000 Mortise Lock. The lock is available in fail-safe or fail-secure control. Voltages available are 24V AC/DC and 12V AC/DC. Monitoring options include request to exit switch, latchbolt monitoring and security monitoring.



NoviProx by Cypress Computer

Cypress Computer Systems, Inc. unites the technology of HID's eProx Lock Module with a pioneer in electronic lock hardware creating the unique array of styles, finishes and features found in the NoviProx. The NoviProx is 100% compatible with the Cypress Access Point Manager and most other existing on-line systems that use HID prox cards and readers. The NoviProx is highly economical, requiring no external wiring, electric strikes or significant door alterations. Features include up to 32 schedules, 4000 users and a 4000 event history transaction capacity.

Ilco Unican Solitaire 850L-LearnLok

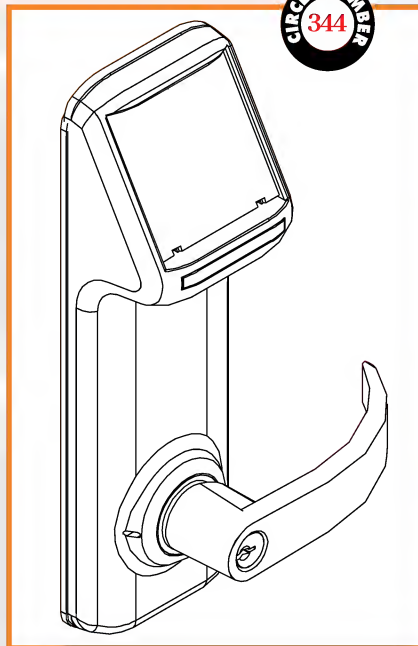
The Ilco Unican Solitaire 850L featuring LearnLok technology, is a cost-effective solution for clients who do not require a sophisticated system. This lock enables the enrollment of users without the need for a computer, software or even programming modules. You can even use your existing credit card or bank card. The LearnLok can be upgraded



without the hassles to the full-featured system if required at a later date.

BOOTH #501

Marks USA Stand-Alone Electronic Lock



Marks USA is moving into the stand-alone electronic lock arena in a big way. Several years of development and testing have yielded a product that is different from those currently on the market. This is not a "me too" lock, rather it expands on the best of the current offerings with unique features that will advance the industry to new levels. Focus groups have been amazed that Marks USA was able to create such a feature rich lock and maintain a sleek exterior look. Stop by our booth and see the future of stand-alone access control. **BOOTH #627**

The National Locksmith Magazine Subscription



This is THE source for automotive technology, safe opening techniques, electronic security and much, much more.

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#SUB - 1,2,3,4,5,6

**Medeco SiteLine
Intelligent Lockset**



The Medeco SiteLine Intelligent Lockset is the latest addition to the rapidly growing line of Medeco SiteLine access control products. The Intelligent Lockset is a stand-alone, battery powered unit that utilizes a unique credential that combines the flexibility of electronic access control with the security of Medeco's renowned key control policies and patented mechanical keyways. The unit is capable of controlling up to 1,200 users per door. The Intelligent Lockset unit is easy to install and is easily programmed and audited using powerful and intuitive Windows-based software and a unique "portable database" key.

BOOTH #601

Infrared Remote Lock

Morning Industry has the Wiselock Series of remote control deadbolts, which lock and unlock doors using a



high security infrared remote system (similar to those used in luxury automobiles). Wiselock users press a button on the infrared remote and the door opens. Users do not need to remember access codes or worry about fumbling keys. Over 1.6 billion codes are available, reducing the worry of code duplication. Each Wiselock includes two remotes and keys for conventional entry. The stand-alone, battery powered deadbolt is in a lifetime tarnish-free (PVD) brass finished housing and requires four "AA" batteries for operation.

MicroBolt ML



MicroBolt ML from Saflok is an electronic deadbolt lock for apartment and commercial applications. This popularly priced 1-inch deadbolt throw combines security with the ability to easily make new electronic keys. A hand-held encoder is used to encode new, reusable change keys, and is used to display an audit trail of the last forty transactions. The MicroBolt ML provides three levels of key access.

BOOTH #120

Sentrylok E-Latch

Sentrylok's new E-latch is designed



specifically for use on narrow style aluminum entryways where access control is desired. Installation is quick and easy as it fits into a standard 6 7/8" X 1" latch lock cutout on the door. Tested to over 300,000 continuous cycles, the E-Latch is a reliable fail secure electrified locking device. Additionally, the E-Latch retains all of the features of the mechanical version including latch holdback, and use with a mortise cylinder and push paddle for instant egress. Available in 12VDC and 24VDC, 31/32" and 1 1/8" backsets, with field reversible handing.

BOOTH #807

**Yale Electrified 5400LN
Cylindrical Lockset**

Yale has introduced the new electrified 5400LN Grade 1 Cylindrical Lever Lockset. The electrified 5400LN can be interfaced with access control systems for security and control and fire alarm systems. Applications for this new product are stairwell doors, computer rooms, hospital equipment and drug rooms, and cashier rooms. The new electrified 5400LN is designed to be a leader in electrified locking with a variety of "Best-in-Class" features including free wheeling levers for vandal resistance, remote locking and unlocking and a broad range of Yale and competitive cylinder options.

BOOTH #437

Cyberlock

Cyberlock from Videx is an innovative lock cylinder that allows quick and easy conversion of existing mechanical locks into intelligent access control systems. The Cyberlock system consists of two components: the pickproof Cyberlock



cylinder and its companion CyberKey. The electronic cylinder replaces 6-pin mechanical cylinders in tubular knob sets, lever locks, rim locks, mortise locks and padlocks. Each CyberKey contains a unique ID and controls who is allowed access at specific days and times. Each entry is recorded in both the CyberLock and CyberKey.

BOOTH #137

Electronic Security

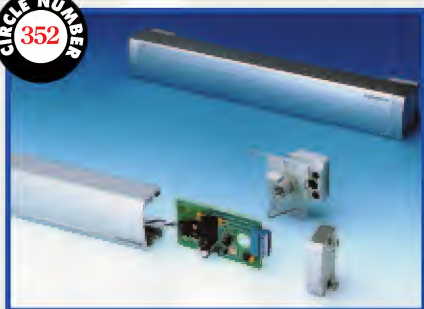
Aiphone Drive-Thru Video System



Aiphone Corporation offers the DTX 3000, a new audio/video drive-thru system which will provide the convenience of face-to-face (two way) service for the pharmacy, banking and other retail industries utilizing drive-thru lanes. Features include a color touchscreen control panel, a remote color tilt camera enhanced to perform better in direct sunlight, five inside stations, three drive-thru stations, and audio/video messaging or advertising. A cordless telephone interface is an additional option.

DynaLock 6450 Exit Sensor Bar

DynaLock Corp. introduces the non-latching UL listed 6450 Exit Sensor Bar designed to specifically release electric locks when activated by anything including a hand, clothes, cart or ADA devices. Reliable optical sensors eliminate complicated tune-in



and costly call backs. All metal construction, including end caps, resists impact and fire, and ensures compatibility with architectural finishes.

BOOTH #847

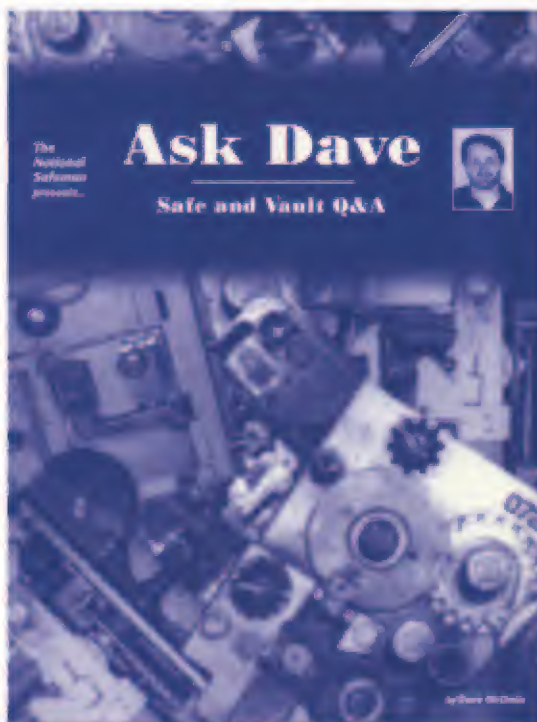
Alibi Locking System from Euronetics

Euronetics France recently launched its Alibi system, a new flexible, programmable key and lock cylinder combination for access control in buildings, offices, hotels and vehicles. Alibi and a two-tier master key system, Sakkarah Master and Sakkarah User, combine mechanical strength with electronic program-



mability and data communications. The system is programmed by means of a small screen integrated with the Sakkarah Master key itself, housed in

Ask Dave



You asked. He answered. This is safe and vault Q&A with an attitude.

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#AD - 1

a 2 1/4 x 1 5/8 x inch key case. Once programmed, Alibi system keys communicate with the lock cylinder by means of a unique and unbreakable code.

Prox-in-a-Box



Prox-in-a-Box™ is the first access control system designed for alarm dealers. Easy to install, program, and operate, Prox-in-a-Box functions without a PC. Since Prox-in-a-Box™ is keypad programmable, first time installers and professionals will appreciate the simple menu driven LCD keypad interface. The Prox-in-a-Box™ convenient start up kit includes: a 4 door controller, LCD Keypad, 2 Prox Readers, 25 Prox cards, transformer, enclosure and more.

Easy Read-Prox from RCI

RCI's new Easy Read-Prox stand-alone reader is very small and easy to install. Just three pairs of wires for a quick connection, one card to activate all users, one card to set the lock mode and the whole system is up and running. Users have a choice of prox cards or key fobs as well as three different reader styles. Contact RCI today for more information.

SECO-LARM Armored Door Cords

SECO-LARM USA, Inc. is now offering the SK-969 series of surface-mounted armored door cords as part of a complete line of access control products. The armored door

cords allow door-mounted devices such as push bars or electromagnetic locks to be connected to wires which run through walls to an alarm control panel or another access control device. A flexible stainless-steel casing

protects the wires, but does not interfere with the operation of the door. SECO-LARM offers two models. The SK-969S-18 features a square junction box at each end.

Secura Key Proximity System

Secura Key announced the e*TAG line of

Radio Frequency Identification (RFID) readers and writers with a variety of proximity cards and tags available with full color graphics. Using transponder technology from Texas Instruments, this product line is a



state-of-the-art high frequency (13.56 MHz) proximity system with read and write capability, with up to 256 bits of data storage. The e*TAG line of RFID products provides a full range of reader/writers with read ranges from one half inch to 30 inches. Cards with full color graphics are available at very competitive prices.

BOOTH #447

Security Door Controls CD

Architectural specifications for Security Door Controls access control hardware are now available on CD-Rom. The CD includes a compilation of



over 150 products, accessory components and systems identified under CSI divisions 08740 "Electromechanical Hardware" and 13820 "Door Control". In addition photographs assist with product identification. Written specifications include Electromagnetic Locks, Electric Strikes, Electric Mortise and Cylindrical Locks, Delayed Egress Locks, Electric Bolt Locks, Request to Exit Devices, Power Supplies, Access Controls and Systems. **BOOTH #721**

Electric Strikes & Electromagnetic Locks

Door Controls International Controllers

Door Controls International has introduced a complete line of access controls to complement the revolutionary RDA LOCK Electromagnetic Lock. This patented Grade 1, UL listed magnet is



recommended where security is a priority. For controlled egress, use our RDA Lock, 1400 Series Electromagnetic Lock with Passive Infrared Detector (PI), PS17 Power Supply, and 300 Push Button with Time Delay. DCI offers other products to meet all your requirements for access control. **BOOTH #743**





HES Genesis

HES has a revolutionary new device that does what no other electric strike has been able to do - eliminate the need to prepare the jamb prior to installation. With all electrical and mechanical components completely encased in the 3/4" x 2" x 9" surface mounted faceplate, there is no need to cut the jamb prior to installation. Simply place the surface mounted faceplate on the doorframe, line it up with the latch on the existing rim panic device, mark the mounting holes on the frame, and install it. It's that simple. It is uniquely designed with an extended latch cavity to accommodate any manufacturer's rim panic device and features dual voltage 12 and 24 volts, AC or DC.

BOOTH #429

ROFU Electric Strikes

ROFU International has made major improvements to the old standby of the security industry, the electric strike. The patent pending 2400 Series is field convertible from fail-safe to fail-secure or back in 10 seconds or less



by moving two external screws. This strike works even when subjected to 35 pounds of back pressure. Uni-body construction, an investment cast keeper, stainless steel faceplate and shallow overall depth are some of the additional features. Optional items are a lip extension and LCM (latch and cam monitoring).

BOOTH #617

Shear Aligning Magnalock

Securiton Magnalock Corporation has a surface mount housing option now available for the Shear Aligning Magnalock (SAM). The SMSS for the shear strike plate and the SMLS for the lock body now allow either device to be surface mounted with the universal bracket design accommodating a wide variety on surface mounting options. The SAM is the first electromagnetic shear lock design that does not require special electronics, timers or sensors to assure position of the armature to lock the door. The Shear Aligning Magnalock utilizes a patent pending conical button technology to guide the strike plate into the proper position.

BOOTH #415

Trimec Low Profile Rim Exit Strike

The ES260 is the first low profile Rim Exit Electric Strike available on the market - requiring less than a 1/2" frame depth in which to install, making it easy to install back-to-back Rim Exit Strikes on a mullion or in other narrow frame applications. With an investment cast stainless steel body and faceplate, the ES260 is a unique roller keeper, which reduces friction between the panic bar latch and the electric strike, offering a longer life for both devices. The ES260 is field reversible from fail safe to



fail secure, has continuous duty solenoid, requires just 88mA of current at 24vdc, and comes with a 5 year warranty.

BOOTH #331

Keypad Access Control

Trilogy Mortise Locks



Alarm Lock Systems, Inc. now offers the Trilogy Mortise Locks, DL3500 Series. The electronic Mortise digital locks, with audit trail and timed locking, reach a new level in advanced high-security. The new DL3500 is available in Classroom Models that feature a latch bolt with 3/4" (1.91 cm) projection, or Deadbolt Models featuring both, a 1" (2.55 cm) deadbolt projection and the same latch bolt projection as the Classroom Models. Some of the advanced features of the new Mortise lock include: 300 user codes, all models are weatherproof and operate from -20 to 151 F (-29 to 66 C), 40,000 event audit trail provides a printed time/date-stamped logging of all activity, and 4 programming levels and 4 user groups.

Stand-Alone Programmable Cabinet Locks

Locknetics Security Engineering has a 443BP battery-powered, programmable cabinet locking system. A battery powered version of the Locknetics 442S hardwired cabinet lock. The 443BP Cabinet Lock employs a stand-alone design with no need for external wiring. Four, common AA batteries provide 80,000 activations, or about three years life.





The 443BP comes equipped with either a CM Series or PRO Series controller. With a CM Series controller, the 443BP can be easily programmed for up to 150 user codes and/or TouchEntry data keys, with an optional audit trail of the last 100 events. The PRO Series controller accommodates up to 20 users with 3 to 7 digit PIN codes.

Miscellaneous

Adrian Steel Van Interiors



Adrian Steel Company has van interiors specifically designed for the security industry. Adrian's trade specific packages are designed to make the most of the work and storage space within your full size or mini van. Each trade package comes complete with ample shelving, cabinets and a partition.

BOOTH #641



Buddy Key Management

Repli-Key™, the multiple key management system from Buddy Products, is designed to enable you to keep maximum control of master and duplicate keys. The system tracks up to 90 master keys and loan keys in three ways and units come complete with an Index/Cross Reference binder. Also available in a 56 capacity desk drawer tray. **BOOTH #712**

Keedex Weldable Gate Boxes



Keedex has expanded its line of weldable gate boxes. Keedex now has more than eighty different boxes, which are used for mounting locks, electric strikes and other hardware on gates. The Keedex boxes are available in both steel and aluminum.

BOOTH #801

Personalized Key Blanks



Kustom Key, Inc. is now celebrating its 28th year of serving the locksmith professional. The company is famous for its personalized imprinted and embossed key blanks that often feature the name, logo and phone number of professional locksmith operations from coast to coast. The keyway selection features over 500 commercial keyways including many that are hard to find.

BOOTH #243

Lund Key Control Catalog

Lund Key Cabinets featuring visible key control are described in a



new 16-page catalog. New products shown is a key cabinet with a locking inner compartment and a locking exterior door. A dual lock key cabinet for extra security. Prison key cabinets of all sizes are also included. Lund makes over 70 different styles of key cabinets and panels, all complete with systems for controlling keys. Capacities range from 10 hooks to 3312 hooks. The system can be one tag or two tag. Lund also makes brass, plastic or fiber key tags in assorted colors, marked in letters or numbers.

MACE

Give your customers the ability to protect themselves in their car or home, with Mace brand products. Mace offers a variety of personal defense sprays in combined formulas for maximum Triple Action™ effect. Single-formula Pepper Mace™ selections are also available for outdoor use by joggers, walkers and other outdoor exercise enthusiasts. For home security, Mace brand devices include an easy-to-use remote alarm system and automatic sensor light.

Monarch Tool Acquires Universal Coin Lock Company

Monarch Tool & Mfg. Co., Inc., a manufacturer of coin boxes and associated products for the Laundromat and vending industry, has acquired the Universal Coin Lock Company. The venerable product is seeing a renewed interest in controlling access to restrooms in laundromats, service stations, restaurants and bus terminals, etc. For coins or tokens, it allows proprietors to limit access (even where pay toilets



are banned, as tokens are free) or to generate some revenue to offset operating costs.

BOOTH #333



STI's New Stopper Dome

For organizations that need it, Safety Technology International, Inc., hopes its new Stopper Dome becomes as well known as the Astrodome, Metrodome and Silverdome. This super-tough cover with advanced features is designed to provide maximum protection for the somewhat smaller horn/strobe signal units of the new generation of fire protection systems. The Stopper Dome is available in a variety of models for flush or surface-mounted applications. STI 1225 (without slots) is for strobes only and STI 1215 (with slots) is for horn units. Each is for flush mount, meaning they are installed directly onto a wall or ceiling. Because of advanced design, STI 1215 has less than 2 dB sound-loss while the STI 1225 features minimal signal light loss.

Shatterguard Window Film

Shatterguard is a transparent, virtually indestructible film that is applied to glass to prevent shattering by an intruder or from winds in a hurricane or tornado. By strengthening the windowpane up to 300%, Shatterguard can stop the intruder from entering the premises. Shatterguard has undergone extensive ballistic and structural testing. In most cases, films can reduce insurance premiums by 10%. In addition Shatterguard window films will not alter the original appearance of the glass, and can be installed clear



Ford 8 Cut Decoding Key Set



Complete with 143 specially cut keys and simple directions. You get door and ignition keys within just a couple of minutes.

CLICK HERE TO LEARN MORE



#FD - 8

or tinted to reduce glare and heat gain. Nationwide licensed territories are available. The partnership referral program pays Locksmiths a 15% commission.

Tufloc's Roll-Up Door Lock

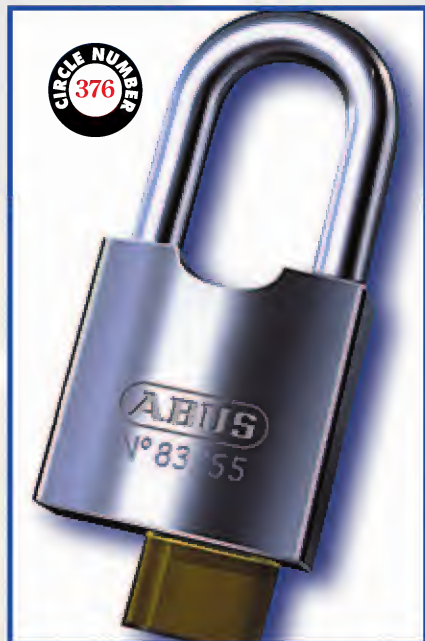


CIRCLE NUMBER
375

In an ongoing effort to provide the highest security locks for delivery vehicles, Tufloc has developed a new lock using technology from its original design. Like its predecessor, the new lock contains no shackle or hasp and is virtually impregnable. The locks also employ a Medeco cylinder. Tufloc's design allows for misalignment and warp between the door and jamb while still allowing the lock to operate.

Padlock & Specialty Locks

ABUS 83/55 Rekeyable Padlock



CIRCLE NUMBER
376

Destined to be a "best seller", ABUS Lock proudly introduces the 83/55 Rekeyable Padlock. Bigger, stronger and better than any padlock in its class, the 83/55 features a tough chrome plated solid steel body and a special core hardened shackle. The German engineered "Z Bar" feature and the cylinders from the popular 83/45 and the 83/50 Rekeyable are built into the new 83/55. Maximum security just got easier.

BOOTH #701

CCL Sesamee Padlock



CIRCLE NUMBER
377

The K 4 4 0 Sesamee padlock from CCL Security Products has a four-inch shackle, which gives the largest clearance of any Sesamee on the market today.

BOOTH #704

American Lock Company NFL Padlocks

American Lock has signed an unprecedented marketing



CIRCLE NUMBER
378

agreement with NFL Properties. The multi-year licensing agreement begins with the upcoming 2000-2001 season and permits American Lock to market padlocks bearing the logos of all 31 National Football League teams. According to American Lock there is a continuing strong demand for licensed products. The market has grown substantially in the last 5-10 years, and the NFL is the sports leader and among the top three for all consumer-purchased licensed products. The NFL padlock features a solid aluminum body with a 5-pin brass cylinder, hardened steel shackle, steel cover plate and American Lock's signature double ball locking mechanism.

BOOTH #630

Federal Lock Model 2070

Federal Lock Company has introduced their new Model 2070 hardened steel shackleless padlock.



CIRCLE NUMBER
379

This solid steel padlock provides maximum protection against drilling, sawing, crowbars, and prying. The padlock is easily rekeyable, and features a pick resistant 6-pin cylinder for increased security. Restricted keying is available with this lock.

Free Toolbox from Master Lock Company



CIRCLE NUMBER
380

Master Lock Company is offering a free 20-inch Waterloo Tool Box with the purchase of four select Pro Series padlock assortments. The tool box features a metal tote tray, rust-resistant latches and comfort grip handle. The padlocks come packed in the toolbox to drop ship locations only. You may choose from any of the following assortments to receive your free toolbox: #3180 - Resettable Combination Assortment; #3181 - Solid Steel Variety Assortment; #3182 - Schlage C Assortment; #3183 - High Security Assortment. The offer is available to Master Lock security hardware distributors in the U.S. and Canada. The promotion is valid while tool box supplies last or until August 15, 2000. No product substitutions.

BOOTH #608

Olympus Lock's Shurlok Security Lock Box

Olympus Lock is excited to announce our new, patented product to the market - The Shurlok Security Lock Box. This one-of-a-kind, durable all metal key storage padlock is better quality (no plastic buttons or dials), priced significantly lower, sleeker design, and easier to use than

CIRCLE NUMBER
381



any other product on the market.

BOOTH #634

W-LOK Stainless Steel Padlocks



The W-LOK Corporation has recently introduced a new line of totally stainless steel padlocks. W-LOK padlocks boast the only hardened stainless steel cylinders in the industry. These cylinders use free spinning stainless steel discs to achieve both superior security and incredible resistance to extreme environmental conditions. All codes and keys are factory controlled, guaranteeing each customer the safety of a unique code. W-LOK padlocks are available in many sizes and variations with new lock models being introduced regularly.

BOOTH #824

Safes & Safe Products

New Safes From A&B Safe Corporation



A&B introduces its new line of Hotel/Motel room safes with easy access electronic locks. These safes come in two popular sizes for use in home, office, dormitory rooms and any situation that requires quick easy access and reliable security. Safes are equipped with digital input pads or credit card swipe and digital pad. Holes are provided for easy bolt down.

BOOTH #818

Ilco Unican D60/R77 Dial Ring



Ilco Unican announced the introduction of the new R77 top read dial ring. This new dial ring offers the traditional top read of "spy proof" feature for privacy when dialing a combination, a sleek profile, finishes in traditional black with white fill, bright brass or satin chrome, dial locking on 0, 50 and 87. The R77 is only 3.38" in diameter and was designed to enhance the Ilco Unican top read dials.

BOOTH #501

Indiana Cash Drawer Company Drop Drawer

Indiana Cash Drawer Company presents the Drop Drawer. A breakthrough in cash drawer design, the Indiana Drop Drawer offers close to 100 cubic inches of secure, lockable

CIRCLE NUMBER
385



large bill and check storage. The separate manager drawer with media slot is keyed differently from the main cash drawer allowing for manager only access while providing additional cashier security.

ITI Safescope

CIRCLE NUMBER
386



The ITI model 131060 Safescope is the ideal scope for safe penetration. It's rugged, stainless steel shaft houses computer designed optics and fiber optic illumination that provide an unequalled view. The right angle 90° line of sight and extra-wide 70° field of view allow you to see all three wheels. The Safescope has either a 10' or 25' working length to get you into the most demanding areas.

LG Basic

CIRCLE NUMBER
254



LA GARD, Inc. introduced the new LG BASIC. An electronic lock at a price comparable to mechanical locks while still maintaining the reliability and security of a high-end electronic lock. The LG BASIC was designed to meet the demand of the large number of consumers who have the need for increased security and ease of operation. It includes such features as manager mode, wrong try penalty, an outside battery compartment and comes in satin-chrome or brass finish.

BOOTH #122

Lockmasters L3000 Auto Dialer



The technology just keeps on advancing. The new L3000 from Lockmasters is the latest, state of the art, automatic safe lock dialing machine. Through the assistance of our hundreds of customers who have purchased the ITL2000, we have incorporated a more user-friendly interface through PC menus, increased the dialing speed of the machine and added a long list of new features. If you can install a printer cable to your PC and can insert a 3.5" diskette, then you have what it takes to integrate the L3000 with your laptop or desktop PC. The unit is designed to operate on any 386, 486 or Pentium

PC. The software can be installed and operated under DOS, Windows 3.1, or Windows95 operating systems.

BOOTH #515

MDS PS 1000



The PS 1000 offers wide-angle 95° field of view along with a 30° corrected viewing angle, virtually eliminating the need for "mirror" tubes. The slim 5mm fiber optic probe can easily fit into a 1/4" hole. Camera adapters, camera and monitors are also available from MDS. The new, state-of-the-art PS-100 borescope compares to the high-priced rod lens instruments

on the market today but it's half the cost.

BOOTH #520

MBA USA SoftDrill



Guide to Motorcycles

For years locksmith have begged for a comprehensive service manual on motorcycles and its finally here!

[CLICK HERE TO LEARN MORE](#)

#MOT - 2

SoftDrill is the new safe-opening sensation you've heard about. This remarkable instrument utilizes advanced technology to determine the combination of common mechanical safe locks - just like an expert manipulator would. Many safes have yielded in less than 30 minutes, making this device a quick and useful asset for progressive lock shops.

BOOTH #638

Dave McOmie Safe Book Collection on CD



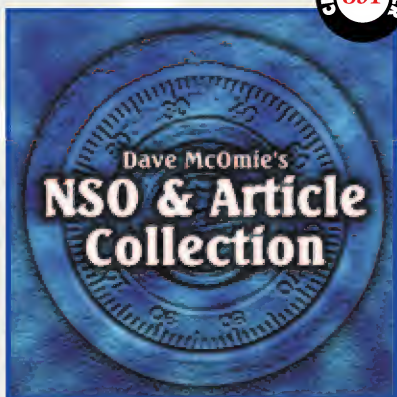
CIRCLE NUMBER 391

This CD contains every book Dave has ever published. It contains over 2,300 pages, an Easy Index, safe/vault opening instructions, about 6,000 photos. Price: \$899 • (NSO members call for special pricing) Includes:

- The National Locksmith Guide to Safe Opening, Volumes 1, 2, 3, 4, 5
- The National Locksmith Guide to High Security Safes, Volume One
- The National Locksmith Guide to High Security Safes, Volume Two
- Dave McOmie's Penetration Party
- Dave McOmie on Vault Doors, Volume One: Bank Vaults
- Dave McOmie on Vault Doors, Volume Two: Plate and Fire Vaults
- Dave McOmie on Gun Safes

BOOTH #647

Dave McOmie NSO & Article Collection on CD



CIRCLE NUMBER 391

This CD contains every NSO newsletter and McOmie File Dave has ever published. It contains about 2,400 pages, an Easy Index, safe/vault opening instructions, about 6,000 photos. Covers about a thousand safes not contained in the other CD. Price: \$699 • (NSO members call for special pricing) Includes:

- Every NSO National Safeman newsletter since it began in 1992. Each newsletter features detailed safe and vault opening photos, drill points and procedures on a wide variety of safes from the normal to the very high security.
- Every McOmie File published by the NSO which gives you all the known opening methods on virtually every important safe lock made, mechanical and electronic, with X ray views.
- Every article Dave has written for The National Locksmith from when he started in 1986 right up to the present in 2000. Read every word, learn every technique, and see every photo.

BOOTH #647

Perma Vault Safe Corp. Hotel Safes



CIRCLE NUMBER 276

Three new hotel guestroom safes are available from Perma Vault Safe Corporation. Constructed of heavy gauge steel with an attractive powder coat finish, the safes feature pre-drilled holes for bolting and mounting to any structurally sound surface as well as a foam padded insert to protect contents. Safes are available with Medeco high security restricted keyways, Medeco quick-change removable core locks or electronic digital locks. Keyed locks are available master keyed, keyed alike or keyed differently. Electronic locks feature liquid crystal display with backlight. Guests can set their own locking code, which is deleted each time the safe is opened.

RQ Color Camera & Video

The AngioLaz VBS-1m color camera and video system from RQ Associates is compact, portable,



CIRCLE NUMBER 279

provides the locksmith with bright and sharp images and a great depth of field inside a lock assembly. The color camera head fits into the palm of the locksmith's hand. Working off a single power cable to a standard 120-volt outlet, the color display module contains a 10-inch color monitor and a high intensity light source. Also available as a monochrome system, the monitor and camera/scope can easily be carried by the top-mounted handle or in an optional shipping case.

BOOTH #648

Safe-N-Secure Wall Safe



CIRCLE NUMBER 394

Se-Kure Control's Safe-N-SeKure Wall Safe enhances any home. It features a combination lock, double reinforced steel door, green felt lining and 435 cubic inches of storage space. It installs easily between 16" on center studs.

Sargent & Greenleaf Electronic Lock



CIRCLE NUMBER 281

Sargent & Greenleaf Compotronic Model 6126 Electronic Lock is designed specifically for banks or businesses with multiple shifts and different people needing access at different times. It provides control, verification, and enforcement of authorized access to any safe it secures, tracks user access activity, and accommodates up to three independent user groups, with a total of 31 separate user codes. The primary user group allows you to choose from three different user access modes: single code entry, manager/employee, or dual control. The second and third user groups are always dual control and are designed for servicing organizations that need access anytime. For greater management control, codes from one user group cannot be used with codes from another. **BOOTH #510**

Winchester Legacy Safe



ALOA convention. Master key allows you to generate new systems as well as input old systems. System checks review your proposed system before generation to correct any settings that may lead to future problems. The maintenance section allows you to insert your company logo and address information on printouts. User settings can be changed so inexperienced users can view systems but not make any changes to the system. **BOOTH #821**

Lockcodes.com

Now you can obtain codes from the web. Just point your browser to www.lockcodes.com and you are all set. It's a full code program based on Blackhawk's Codes on Disk. Millions of codes, plus space/depth information for popular code machines, clippers and depth keys. Run it at the shop, at home or at a client's office. Use your PC, Mac or Linux machine. Check out the demo at the website now.

BOOTH #335



Tools & Accessories

A-1 CapSaver Press

A-1 has introduced a new



innovative system for capping interchangeable cores. While the new CapSaver Press has the look of traditional capping presses, it is much more advanced. Using CapSaver brass strips, the press punches and forms interchangeable core caps as it seats them. Volume users will find considerable time savings because caps will no longer have to be placed and seated. **BOOTH #720**

Darex End-Mill Sharpeners



Darex end mill sharpeners are made in the Darex tradition "accurate, yet simple." One quick set-up allows you to sharpen both the primary and secondary angles of the flute and end. The unique stylus mechanism automatically generates the proper clearance on any size end mill. The rigid construction of the top-of-the-line E90, coupled with the hard-chrome plated air spindle and stainless steel spindle-sleeve assures long-lasting precision. Exact feed controls and an ingeniously designed indexing mechanism allows easy removal of worn surfaces in .001"



The Winchester Legacy safe is now Omega Point Laboratories Certified with a 1200°/1/2-hour label and carries the UL Gun Safe rating. It is available in a variety of interior configurations with a choice of either gloss coat or textured finish. Ducks Unlimited (DU) editions of the Legacy safe feature the DU logo on the dial and front of the safe, plus an embroidered DU shield on the inside door panel. A portion of the proceeds from the sale of DU safes goes to Ducks Unlimited, Inc., an organization dedicated to the conservation of North American wetlands.

Software

Framon Master key Software

Be sure to check out Framon's new Master key program at this years

increments. The heavy-duty, dynamically balanced American-made motor is reversible to allow you to polish the sharpened carbide end mills to burr free perfection. The easy-pull handle allows precise control of the air-bearing spindle.

Edroy Productions
Magni-Focuser



The Millennium Magni-Focuser is available with or without a light and bifocal lens. It features an adjustable, contoured padded vinyl headband that guarantees a perfect fit for everyone. The Magni-Focuser is lightweight and washable and can be worn over glasses. Its high-impact, non-corrosive ABS plastic front lens unit is both shatterproof and scratch resistant. The Magni-Focuser's lack of a center post ensures that the user's field of vision is never obstructed. The new

streamlined, lighter design promises to make it more comfortable - and therefore more practical - to use than ever.

Multi-Purpose Face Cap Tool
from Gator Tools



Gator Tools is manufacturing a new innovative tool to remove and replace automotive face caps. The Multi-purpose Face Cap Tool will remove a face cap from the lock housing with very minimal damage and the same face cap can be reused after the repairs have been made to the lock. This tool has a specially designed hardened tip and saddle and is fully adjustable to accommodate most any size of face caps. It requires a

minimum amount of adjusting to give a professional look after reinstallation of the face cap. The Multi-purpose Face Cap Tool is a hearty tool with a durable finish to resist weather. The tip is made of hardened material for long wear, but if broken can be replaced.

Jet Hardware Mfg. Corp.

Jet is introducing a new key machine. The 7070 key machine is unique because it is both a semi-automatic and fully automatic with just the push of a button. Jet is also offering the 7060, which is identical to the 7070 but is semi-automatic only. These highly precision machines are equipped with micrometer type adjustments, four way jaws and powered by



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#DMCD - 2

a 1/4 HP motor. They are extremely quiet to operate and knobs are being used to eliminate the wear and tear on the carriage assemblies that is caused by over tightening the handles, placing undue stress on the assembly and the key blanks. **BOOTH #600**

New Peterson Pro-1



CIRCLE NUMBER
257

The new Peterson Pro-1, available from Lockmasters, has a revolutionary handle design, which allows the user to pick the pins with more control and comfort than ever before. Designed to also work on recessed locks, this pick

is supplied with three tips to work on a standard left/right 7 pin, 8 pin, and 7 pin with 360 diameter (Kryptonite). Each tool is supplied with a decoding comb and instructional video.

BOOTH #515

Spiracut Rotary Cutter Kit



CIRCLE NUMBER
390

The Spiracut, available from Jensen Tools, is great for electricians and wire and cable installers. It makes fast, clean cutouts in a variety of building materials, plus lets you make in-place cutouts for electrical outlets, windows and pipes. It features a powerful 3.6 amp motor and a removable depth guide that adjusts, attaches and detaches in seconds. Spiracut accepts 1/4" and

1/8" collets directly without requiring adapters. It has a 10 foot power cord, and includes a rotary cutter, two collets, two burr bits, a general purpose bit, two drywall bits, a window/door opening bit, a circle cutter, a depth guide, a wrench, and a rugged storage case. Included is a one year manufacturer's warranty.

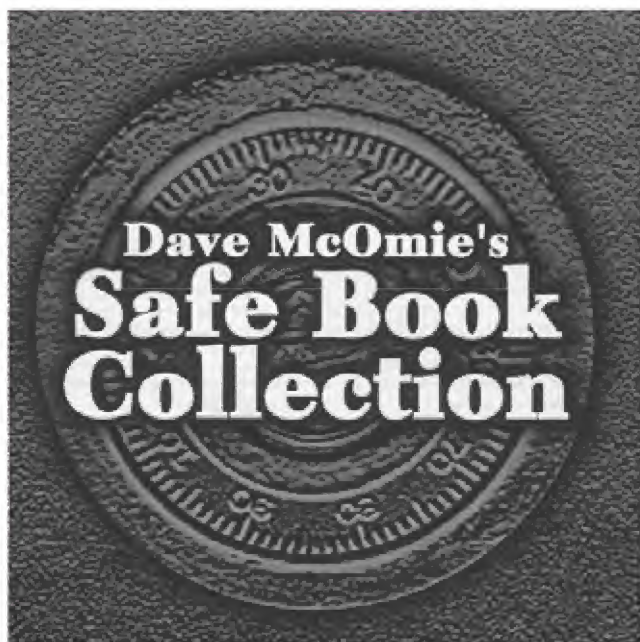
I/C Tool

The LAB Interchangeable Core Annex offers the simplest method for the loading and unloading of interchangeable core pins, spring and caps, using only one instrument for both functions. A second time saving feature is a Slideout Code Book below the area where the core is slid in place. This allows the user to unload



IN STOCK!

CIRCLE NUMBER
253



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#DMCD - 1

the core pins, springs and caps into a confined area without spilling parts in or around the work area. The Slideout Code Book is also used to determine the bitting of the control key when it is not available and also determine the top master key bitting. **BOOTH #700**

LT-620 Grand Master Lock Pick Set

The LT-620 Grand Master Lock Pick Set from Lock Technology contains 37 pieces and is the ultimate pick set available today. The LT-620 includes: 6-piece import rocker set, 12-piece pick set for GM vehicles, 5-piece Ford automotive rocker pick set, 6-



CIRCLE NUMBER 388

piece Chrysler rocker lock pick set, 6-piece set for wafer locks on import

vehicles with a harpoon pick for removing broken keys, a tweezer-type universal lock turning tension wrench, and a gas cap pick tool. Included also is a custom carrying case with instructions.

Major Manufacturing Tools



CIRCLE NUMBER 259

Visit the Major Manufacturing booth and see the latest drill guides and templates that are available. On display will be the HIT-44 Drillmaster, drill guides for lever and pushbutton locks as well as router templates for electric strikes. Also on display will be the HIT-45 series clamp with templates for aluminum door locks as well as most mortise locks. Many other time saving tools and kits will be on display. **BOOTH #148**

PRO-LOK 2000 Complete Car Opening Kit

CIRCLE NUMBER 387

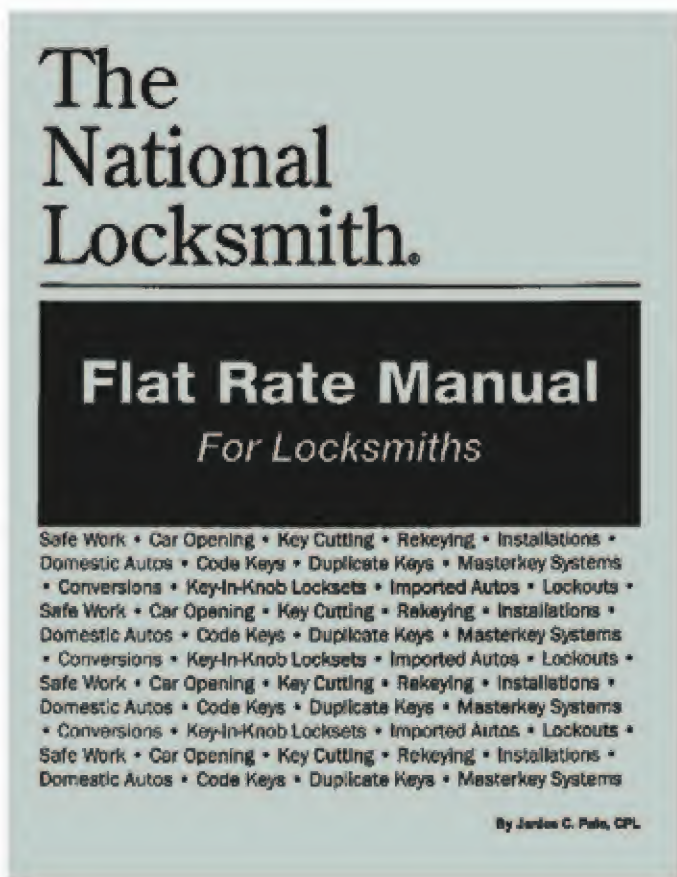


For the technician that wants 1 of every opening tool that PRO-LOK makes. This kit offers you 47 tools made of the highest quality wire and stainless steel. Full instructions for each tool will insure that you are equipped with any tool that you may need. Never again will you be without the tool that you need. The kit is easily updated each year to keep you up to date. **BOOTH #424**

Ratchet Screw Driver

The Pistol-grip Over-Driver from Sieveking Products Company has a 2-speed, silent, ratchet action precision clutch and two-position Pentagrip drive

Flat Rate Manual



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#FRM - 1



handle for better torque and reduced elbow and wrist fatigue. The Over-Driver runs long screws quickly or drills pilot holes for wood screws with a few turns of the handle. The Over-Driver has a 2-speed reversible roller clutch, providing silent ratchet action in 1:1 and 4X over-drive speeds. The rugged speed-gear housing provides instant "shift" to 4X speed when held. Release the housing and return to 1:1 ratchet action. Over-Driver has a hardened steel construction, a stainless steel drive shaft and a magnetic bit holder to accept standard

1/4" hex bits. The Pentagrip handle has an integrated "snap-cap" bit storage compartment. **BOOTH #142**

Speedypik's Automatic Key Decoder



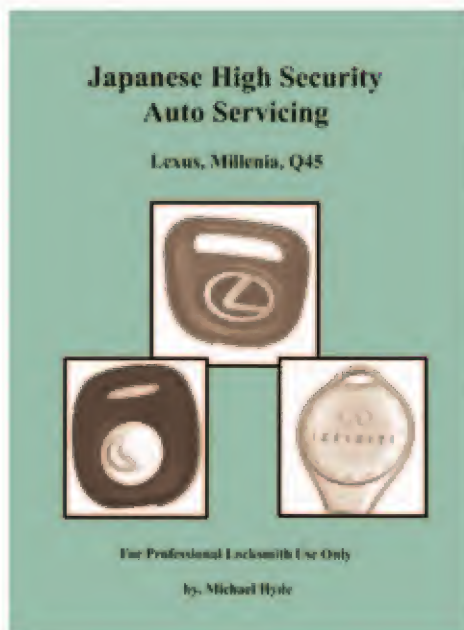
Speedypik has added an Automatic Key Decoder to its line of Automatic Key Identification systems. The new system will eliminate the need to measure the cuts in a key, or eyeball the cuts. This will completely eliminate guessing or training an apprentice to learn the pinning charts. After you dial the lock company and scroll down to the exact key series, just insert the key and a readout will tell you what the cuts are starting from either tip to bow or bow to tip. This scan and readout will only take a few seconds. This unit is portable, handheld battery operated, and

rechargeable. The Decoder can be plugged into a computer through the serial port or connected to a computerized code cutter. You can add manufacturers spacings and depths, then download them through your computer. **BOOTH #133**

Steck BigEasy Lockout Tool



Unlock car doors without the problems of disconnected linkages, damaged wiring, or damage to side impact air bags. The BigEasy Lockout Tool never enters the door cavity at all. Instead a wedge is used to open the upper corner of the door. The BigEasy then reaches in to actuate the interior lock buttons or door handle. Everything is visible to the technician. No training is necessary. Saves time and money. **TNL**



Japanese High Security

Some of the most profitable cars are also the trickiest to work on.

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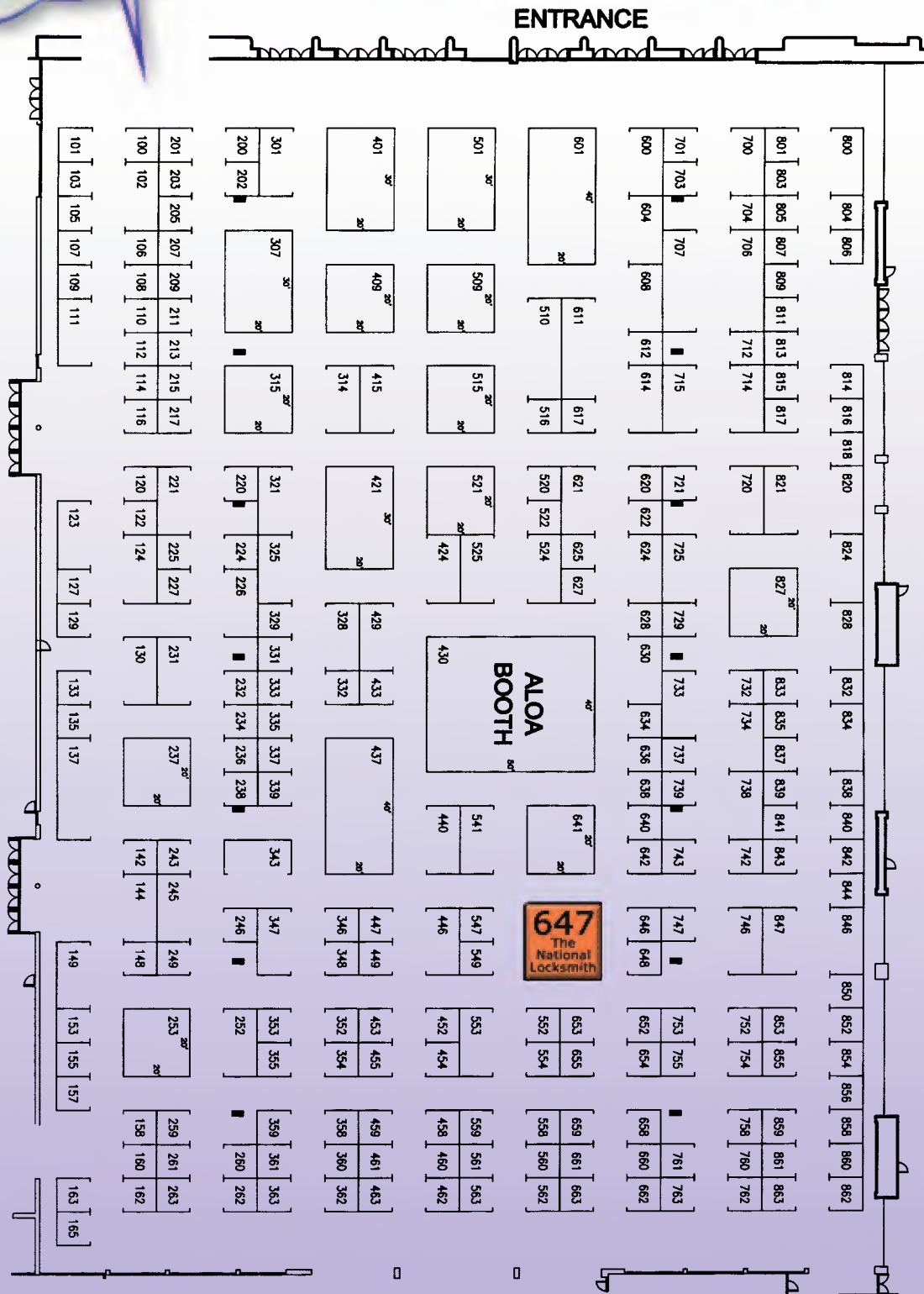


#JAP - 1



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**July 28-30, 2000
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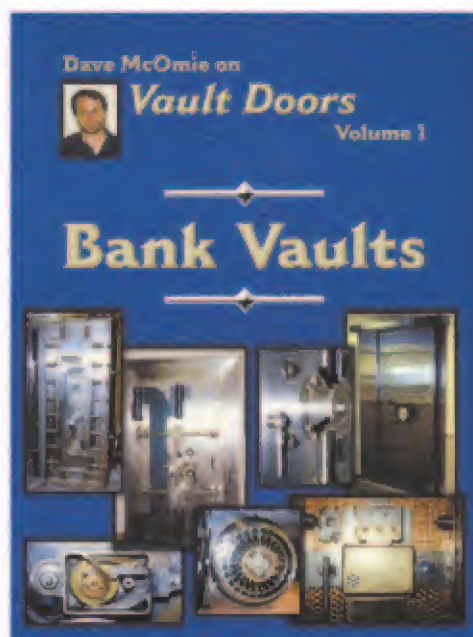
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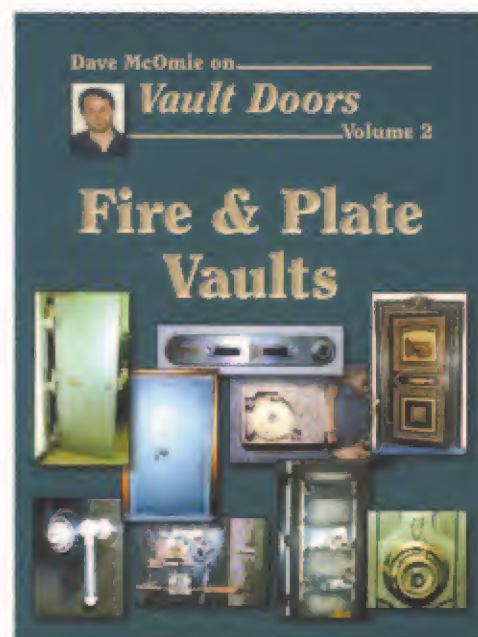
TNL

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#VD - 1, VD - 2

Speedypik



by
Sal Dulcamaro,
CML

I don't know how many years ago it was when I first saw the Speedypik system demonstrated, but it was quite a few. Speedypik is a computerized keyway identifier.

The first version I saw was installed as a peripheral inside one of the bays of a personal computer. The device would scan the keyway and then search a database for a matching pattern. The newest version is now an external (instead of internal) device that only needs to be plugged in to be ready for use. You don't have to be a computer tech or take your computer apart to install it.

Photograph 1, shows the Speedypik unit. It plugs into your parallel (printer) port, but requires a few extra details for installation. Instead of plugging the unit into an AC outlet for power, a special cable connects between the keyboard and the plug where your keyboard would otherwise normally connect. If you are short on places to plug an AC cord, this might be a great way to avoid finding a spare opening. If you have a hard time squeezing into the space to access the back of your computer, it might not be so fun (as was the case for me).

The Speedypik unit is just to the left of my keyboard. The power cable part

is near the plug for my keyboard. (*See photograph 2.*) The ends of the cord are close up in *photograph 3*. The two plugs to the left are for the Speedypik, and the one on the right is the keyboard cable plug. The keyboard cable would plug into the connector in the center, while the plug on the left would enter the keyboard port. It has the same pin pattern as the keyboard plug.

I pulled off the adaptor plug which is larger with a different pin pattern. (*See photograph 4.*) Apparently, if your keyboard uses the larger style plug you switch the adaptor plug. Then you would insert your large keyboard plug into the matching part on the power cable and plug the remaining large plug of the power

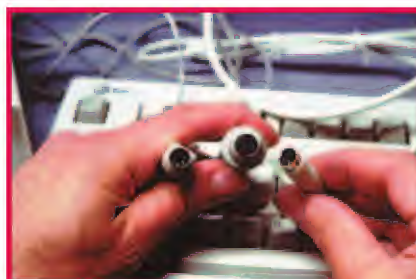
cable into the large keyboard plug port for your particular computer.

What About the Printer?

Before you can plug your Speedypik into the parallel printer port, you will have to unplug your printer. If you don't expect to use your printer anymore, you can easily swap spaces. If you expect that you will need both, you may want to purchase a data switch unit to avoid constant plugging and unplugging peripherals. I bought a four port data transfer switch for about \$25 at an office supply store. (*See photograph 5.*) They were available in



1. The Speedypik unit.



3. The ends of the cord.



2. The power cable plug.



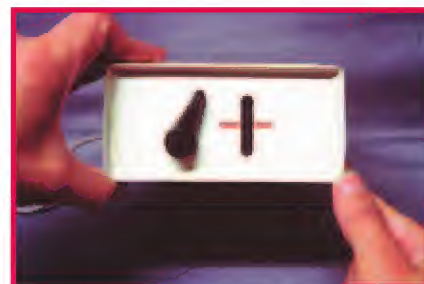
4. I pulled off the adaptor plug.



5. A four port data transfer switch.



6. Back of the unit.



7. Front of the Speedypik unit.

two and four port versions with only a couple dollars difference in cost.

The switch positions range from A to D, with each peripheral matching a specific letter. To use the printer I had to select A. For the Speedypik I selected B. The other two ports are open for future use. *Photograph 6*, shows the back of the unit. The center plug marked "I/O" was where I connected the unit to my computer's parallel port. The peripherals would plug into the spots with the matching letters to identify them.

Just below the data switch unit is a switch box cable which cost a bit more than \$10. Both ends of the cable are male, with the same pin pattern that normally plugs into the parallel port on the computer. Once everything

was connected, it was time to turn on the computer and install the software.

Running the Speedypik Software

The software installed quickly. After installation, though, remember to write down the serial number that is displayed so you can call the company and get the "password" to make the software run. If you have to delete and reinstall the software, a different serial number will appear and you will need a different password to get started the next time. Once that is entered (unless the software is installed again), you don't have to enter passwords anymore. It is essentially a non hardware copy protection feature for the software.

The software would be useless to someone who borrowed or took your

program disk. There is an unrelated option that allows you to password protect the use of the software, if you so choose. That has nothing to do with software copy protection.

Getting Started

Photograph 7, shows the front of the Speedypik unit. Once everything is plugged in and the software is running, it is ready to start identifying keys. *Figure A*, shows what you would see on the computer screen. The instructions in the middle of the screen are as follows:

1. Turn knob to left.
2. Insert key starting in middle of the hole going all the way in.
3. Let go of the knob.
4. Let go of the key.



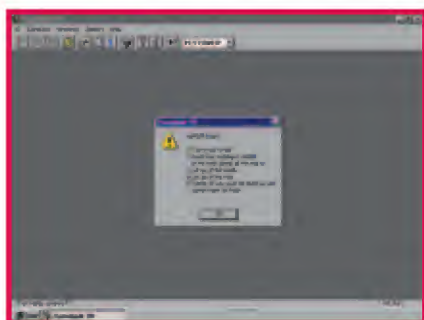
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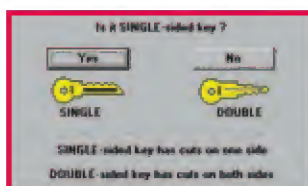
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#GM - 2

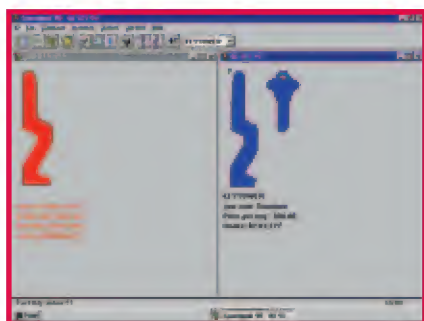


A. Instruction screen.

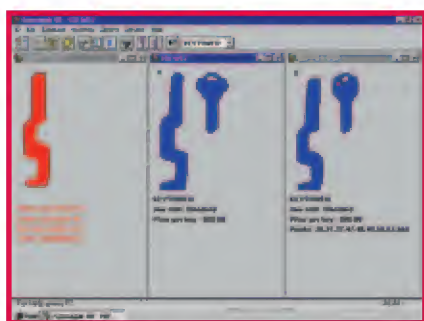


B. Is key single or double sided.

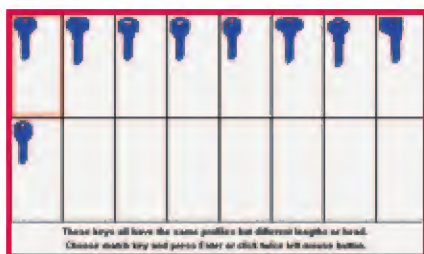
C. Single key selection screen.



D. Scan of the key inserted.



E. Unit returned various results.



F. Nine hook options.



8. Turning the knob to the left.



9. The following screen information.



10. KW1 key blank inside the Speedypik.

5. Center of key must be lined up with center mark on hole.

As per instruction #1, I'm turning the knob to the left, in *photograph 8*. I followed the other steps with the result in *photograph 9*. The next computer screen display (not shown) indicated that I should press the F2 key. Next it requested: "Insert key into the holder and press OK or ENTER." I already had inserted the key, so I just pressed enter.

The next on screen request is shown in *figure B*. It asks if the key is single or double sided. I indicated single and the image in *figure C*, was displayed on the screen. It showed the keyway outline of the SC1 key blank that I inserted. When I clicked on "GO", the images in *figure D* appeared. The image to the left is the scan of the key inserted.

The image on the right is the match from the database. It displays the key number on top: SC1-PC. Next to the keyway profile is a side view image of the key blank. Below the profile is listed the jaw position needed to cut the key, the price for the cut key and the hook positions for key blanks with that keyway.

If I were to inquire further, the hook positions would indicate two other key blanks with the same keyway: SC1 and SC4. Once I chose the one I intended to use and the number of key copies I would make, the program could confirm it and adjust key blank inventory to indicate the remaining stock.

The Kwikset Confusion

Photograph 10, shows an ILCO made KW1 key blank inside the Speedypik. When I scanned the keyway a number of different times, I got different results. *Figure E*, was just one of them. Depending on subtle variations as to how I positioned the key in the holder, it indicated either WK2 or KW1. Sometimes each one showed individually and other times both showed up on the screen with either one showing as first choice.

The WK2 selection has only one hook option, while the KW1 selection has nine hook options shown displayed in *Figure F*. Almost half were actual Kwikset key blank variations, while the others were mostly Dexter or Master key blank variations. The person cutting the keys would have to isolate a choice and proceed further (as indicated above) to track inventory as key blanks were cut.

I tested a variety of other key blanks with the Speedypik, and the vast majority identified correctly the first time. A few had to be repositioned a few times until the unit would recognize the key, while others didn't identify at all. I'm not sure if the keys just weren't in the database, or if they were in the database but wouldn't identify for some other reason.

Overall, I'd say the Speedypik unit and software did a pretty credible job. The product is by no means inexpensive. It is probably best suited to a company with inexperienced key cutters and fairly high sales volume of keys. A large shop can better justify the expense.

For additional information, contact: Speedypik Corp., 378 Washington Street, Woburn, MA 01801. Phone: 617/567-1111. FAX: 617/277-7777. E-mail: SPEEDYPIK@AOL.COM or circle 318 on Rapid Reply. They have a pretty nifty online demo at their website: www.speedypik.com. A new product called the Automatic Key Decoder can be seen on their website, too. **INL**



This month we finish our series on the Pontiac Montana covering the door and glove box locks



The Montana is sporting the new modular outside handle design. The lock cylinder is part of the handle assembly.



Because of this van's great design, the door lock cylinder is a bit difficult to get at, and of course the inside door panel must be removed.



The 1999 Pontiac Montana

part 2

by Michael Hyde





3

Remove the panel bolt under the armrest.



4

Use gentle force to unsnap the trim insert and remove it.



5

There is an electric door control module that has the door lock button and the window control button on it. Gently wedge it up from the rear.



6

Disconnect the wiring loom that is attached to it. Do not force off the connectors.



7

Inside the cavity of the door control module is a panel bolt, remove the bolt.



8

The door panel can now be unsnapped. The panel uses the standard plastic push-in style clips. Start at the bottom of the panel and work your way up on both sides to unsnap all the clips.



Once the door panel is removed you will see the plastic film weather barrier. Gently unseal it around the area you will be working in. The weather barrier is important because it keeps moisture and air flow from getting into the passenger compartment.



Gently peel back the sticker as you will have to reuse it.



Another look at the shielded linkage rods. The door glass, window tracks and linkage rods are all part of a new modular 1-piece unit being used on some GM's.



A look into the door shows the rear side window track is blocking clear access to the rear section of the outside handle and lock cylinder.



There is red reflector sticker covering an access hole on the upper right edge of the door.



Insert a Torx driver to remove the rear bolt on the outside handle. Be careful not to drop or you will have to go fishing.



The bottom of the window glass and its track blocks the forward bolt on the handle. Use a 10mm wrench to loosen the bolt several turns without removing it.



The handle assembly now has just enough room to be slightly ajar from the door skin. Use a small flat bladed screwdriver to wedge out the retaining clip and remove the cylinder from the handle. Keep in mind that this is not a job you want to hurry. The handle parts are plastic and do not bend like rubber bands.



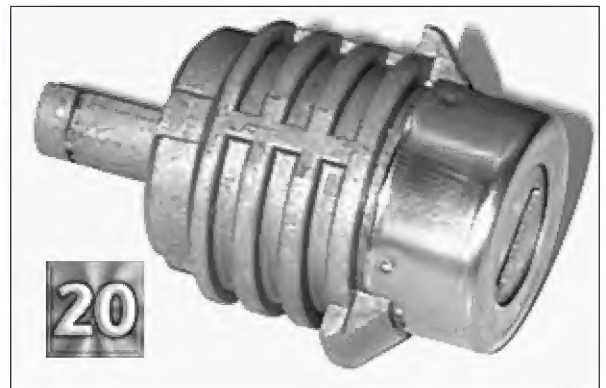
Pull the lock cylinder out of the door cavity.



Mark the tailpiece and remove it.



Make a mental note of how the electric switch on the back of the lock is positioned to the lock cylinder.

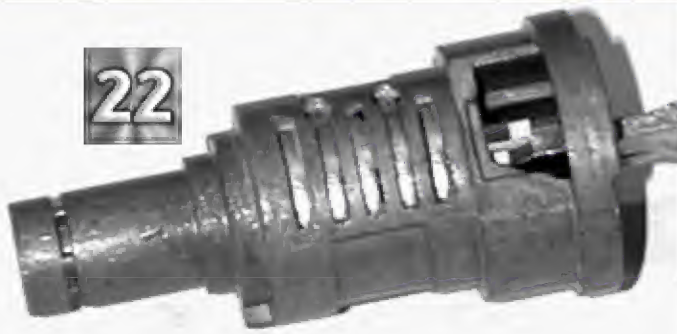


The lock cylinder removed from the van.



The face cap comes rather easy and the lock uses the one-piece modular shutter assembly.

22



The door lock cylinder has 5 tumblers in positions 6 through 10.

25



There is an odd looking tailpiece on this lock. The cylinder plug is warded and must be picked to a certain position in order for it to be removed.

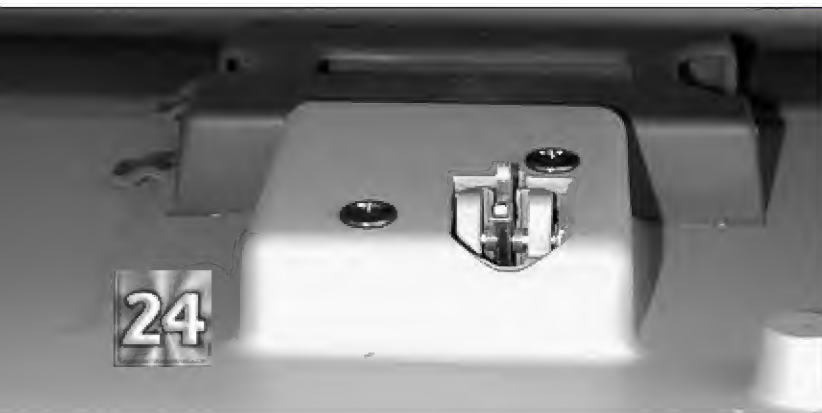
23



Glove Box Lock

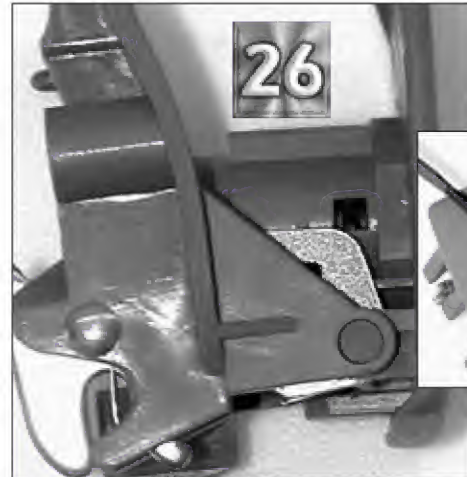
There is a glove box compartment with a lock in it on the right side of the dash.

24



Remove the 2 screws that hold in it to the compartment door.

26



There is an access hole on the side of the lock. Use a 2-prong tension wrench to help hold the plug and provide tension. Pick the cylinder plug to the locked position. Once at the locked position insert a pick in the side access hole and depress the retainer tumbler while maintaining light turning pressure. Rake the tumblers and the plug should rotate even farther now. If you have never done this before it may take a couple tries to get it.

27



Once the cylinder plug ward is lined up the plug will come right out. There are four depth tumblers and one retainer tumbler. The glove box lock has four tumblers in positions 7 through 10.

Safe Deposit Box Service

There is gold in safe deposit boxes!

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#SDBS - 1



MAKING FIRST KEY:

This van is equipped with a locksmith friendly transponder system. First make your mechanical cuts on the transponder key and then you will have to program the key to the van's computer.

Method 1: Try and get code from Pontiac Roadside or have the customer try and get it from roadside.

Method 2: Remove the ignition lock cylinder plug and read code stamped on the lock.

PROGRAMMING INSTRUCTIONS FOR TRANSPONDER KEY:

(No other working key for the car is available. This method will erase all other programmed keys.)

1. Put the newly cut Master key into the keyway and turn it to the "ON" (RUN) position. A "Security" indicator light on the dashboard will light or flash for 10 minutes. (Do not use a Valet key for procedure, it will not work).

2. Within 1 minute after the indicator light goes out, turn the ignition to "OFF", REMOVE THE KEY and then insert the key again and return it to the "ON" (RUN) position. The indicator light will light or flash for another 10 minutes.

3. Within 1 minute after the indicator light goes out, turn the ignition to "OFF", REMOVE THE KEY and then insert the key again and return it to the "ON" (RUN) position. The indicator light will light or flash for another 10 minutes. When the light stops flashing for the third time, the new key is programmed into the computer and will start the car. All previously stored codes will be erased.

FOR CARS WHERE YOU WANT TO JUST CREATE A SPARE KEY:

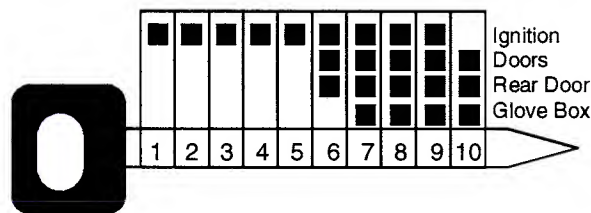
(A total of 10 keys are allowed)

1. Place an already programmed Master key in the keyway. Cycle the ignition from the "OFF" position to the "ON" (RUN) and wait until the "Security" light is not lit, then turn the key to the "OFF" position and remove it.

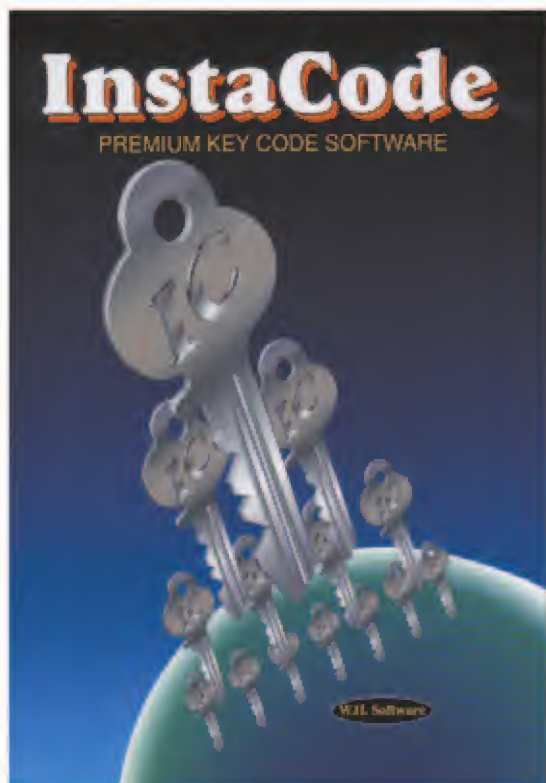
2. Within 10 seconds, insert the new properly cut Transponder key in the ignition. Turn the key to "ON" (RUN). The "Security" indicator light will go on and off. Turn the key "OFF". The key will now start the car.

3. Repeat the steps 1 & 2 for each new key to be programmed.

D CODE SERIES: AA00-7T51												
Bow			SPACING FROM TIP							Tip	CUT TO CUT: .092	DEPTHS
1	2	3	4	5	6	7	8	9	10	1		
1.043	.942	.850	.757	.665	.573	.481	.389	.297	.205	2		
Bow			FRAMON SPACING							Tip		3
1	2	3	4	5	6	7	8	9	10	4		
.215	.308	.400	.493	.585	.677	.769	.861	.953	1.045	.240		
Key Blanks:			ILCO: P1102, P1106, P1107, P1111, P1112, 882, 883, 885, 886, 889, 891, 892, 893				SILCA: GM37, GM39, GM41					
Reed Codes:			12-A-010				HPC 1200 CM		CF215			
Curtis Clipper:		Cam GM-6		Carriage GM-6A		ITL MFG:		519				
Pak-A-Punch		PAK-G1				M.A.C.S.:		2				
NOTES: FRAMON—Lay tip stop clip flat against left side of vise, then tip stop key against clip. Set first cut at .216												



TNL



#IC - 2001

InstaCode

Your total code and code machine management program.



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Tubular Locks

by Bob Sieveking

Part Two



— Fort GEM Cylinder Disassembly —

To this point, all of the locks we have disassembled were disassembled out the rear of the shell. *Photograph 1*, shows the Fort GEM cylinder. Like the ACE II, it is designed to secure a pop-up flush mounted T-handle. In the photograph, you see the front, side, and rear view of the cylinder. The rear of this shell is closed, which will require us to remove the cylinder out the front of the shell.

An easy method of removing the lock cylinder from this shell is to drive the retaining pin into the cylinder. (See *photograph 2*.)

Drive the pin with a center punch down, just far enough to allow the cylinder to slip out of the shell. A key is turned in the cylinder and will be used to pull the cylinder out of the shell. If I didn't have a key for this cylinder, I would use a blank key or depth key in the keyway to give turning tension as the retaining pin was driven down.

When the cylinder turns in the shell, you know the retaining pin is down far enough to remove the inner cylinder from the shell. As the inner cylinder is pulled from the shell, the spring bolt will fly. Be ready to catch it or hunt it, your choice. Use a hook pick to remove the cylinder.

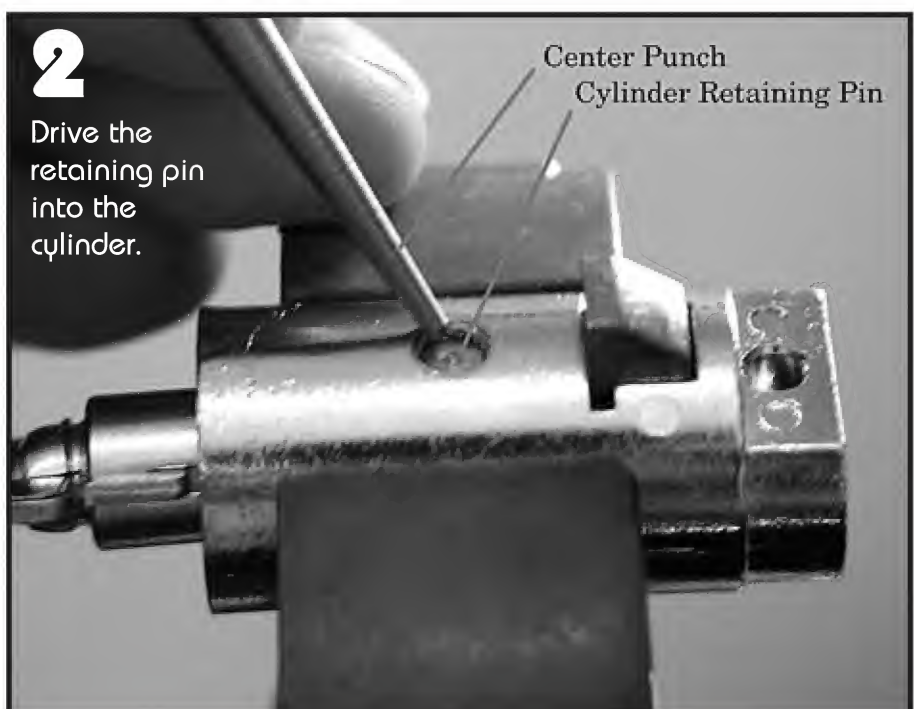
In *photograph 3*, the inner cylinder has been removed from the shell. Though many of the Fort locks of recent manufacture will have a hole or tapped hole in the retaining pin, this pin is solid. Drill and tap the retaining pin as you have done on the past cylinders. The retaining pin will come out without damage to the pin or cylinder if you are careful.

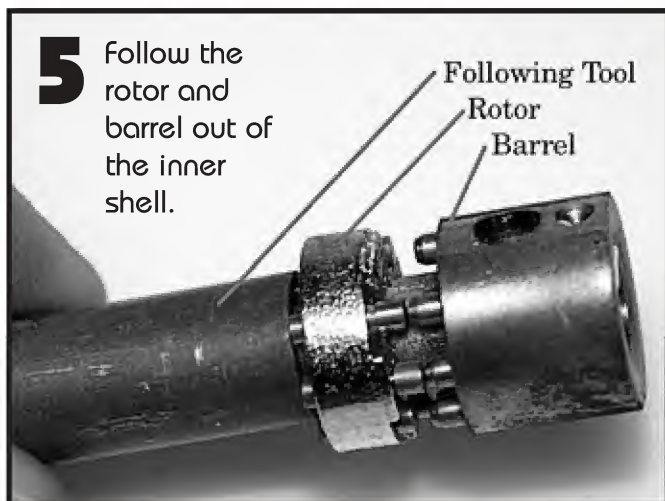
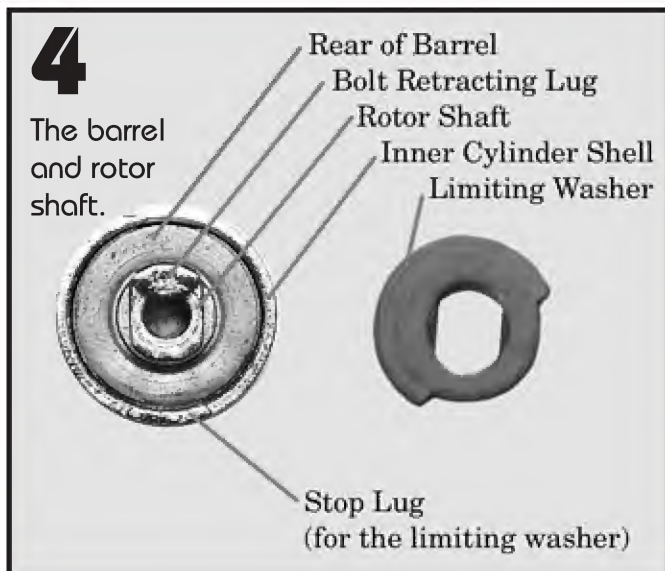
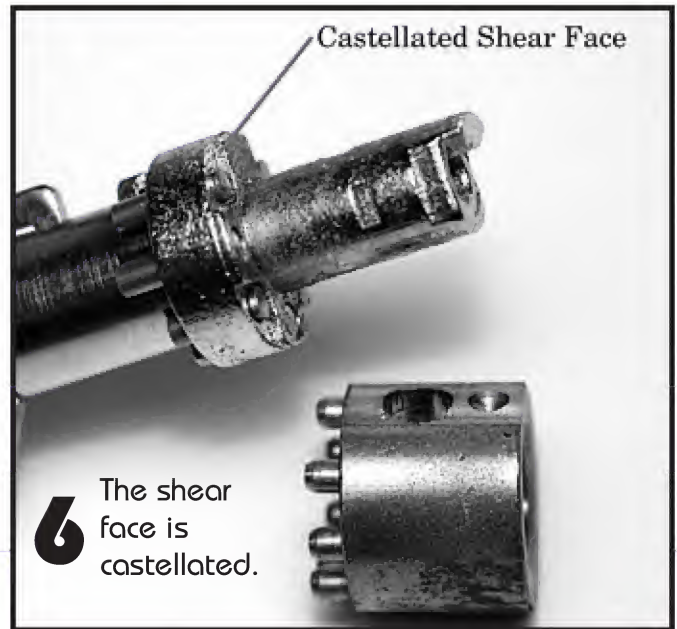
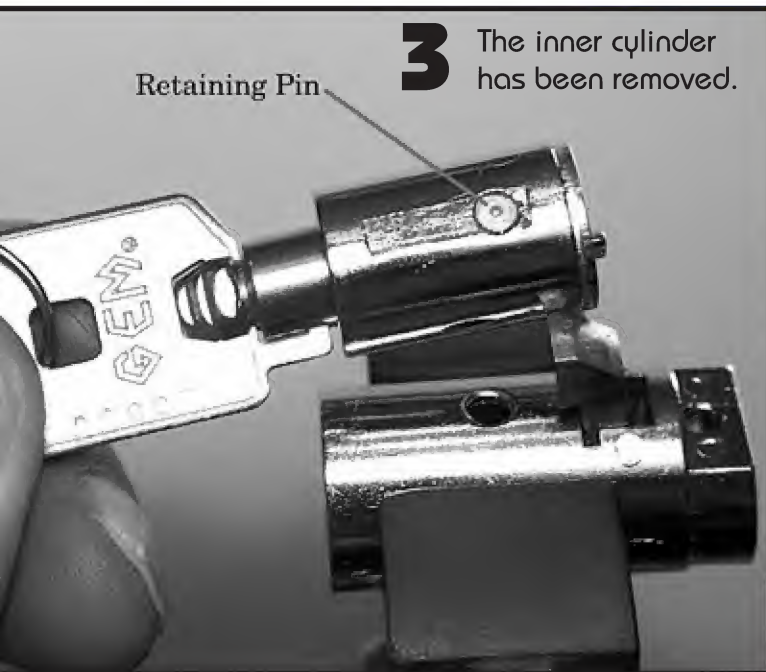
The Fort GEM cylinder. **1**



2

Drive the retaining pin into the cylinder.





The limiting washer is not retained on the rear of the inner cylinder shell. Removing it will give us a view of the

process.

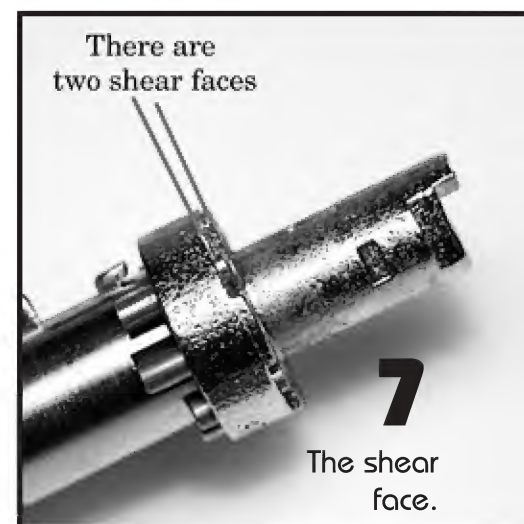
Though this cylinder did not have

barrel and rotor shaft. (See photograph 4.) Follow the rotor and barrel out of the inner shell with the following tool. (See photograph 5.) This will prevent the loss of our combining pins and combination.

The Fort lock introduces a new design to the rotor. Notice in photograph 6, that the shear face of the rotating sleeve is castellated. I'm sure you are all familiar with the castellated nuts that are used to secure the front wheel bearings on most all cars. The high-low design allows use of a cotter key to prevent the nut from coming loose. Fort has adapted this design to the shear face of the rotating sleeve. This creates a unique picking challenge and greatly complicates the

mushroom pins, if it had, the castellated shear face would certainly increase their effectiveness. It creates a tiny chamber that allows the mushroom head to lock up every time the lock is picked. I don't believe this trick is unique to Fort locks.

Photograph 7, gives another view of the shear face. There are two things to see here. First is that there are actually two shear lines. The lower shear line (closer to the face of the



lock) is a false shear line. Pins picked to this face are doomed to failure, either by mushroom lock-up or simply allowing the rotor to turn only a few degrees and then being prevented by the driver to turn any further.

The second thing to notice in this photograph is that when making a key using depth keys, be sure to decode

the pins to the farther shear face. The combining pins will all reach the higher face when the key is properly cut. Positions 1-3-5-7 are trapped. This arrangement is pretty much standard. You'll want to remember this when you get to picking.

The rotor of this lock is two parts. The shaft and rotating sleeve is a cast part. The nose has a reduced shaft, which fits into a socket in the face of the rotor. The nose is pinned in place.

The barrel of our cylinder was designed with extra space below the retaining pin to allow us to remove the cylinder as we did, by driving the pin

seriously increase the security of this little GEM.

— Lockout ACE Cylinder Disassembly —

All of the cylinders to this point have been designed to work with only one key. ACE type cylinders are not usually master keyed. There are, however, three cylinders that come to mind when we think of multiple keying schemes. They are: the **Lockout**, **Master Keyed**, and the **Change-Matic** cylinders. All of these configurations have one thing in common. They have two shear lines, and a second rotating sleeve in the cylinder. The locks we have covered so far all had one shear line (Fort excepted, more or less) and a single rotating sleeve.

The Lockout ACE has two keys. The first is the operating key. It will position the bolt shaft to the locked or unlocked position.

The second key is a lockout key. It rotates the front most rotating

sleeve. It does not control the bolt shaft, and can not be used to position the shaft to the locked or unlocked position. The nose and front most rotor of this cylinder is "free floating." The tail of the front rotor and rotating sleeve slips into a socket in the front of the shaft and rear rotating sleeve. The secondary rotating sleeve is pinned to the operating shaft.

The Master Keyed ACE cylinder

looks very much like the lockout cylinder. It has two keys. Both keys will position the bolt to the locked or unlocked position. One key solves the lower shear line (the one closest to the cam, and farthest from the face of the cylinder). This key will be an operating key, or set key, of the system.

The second key solves the front most shear line (the one closest to the face of the cylinder). This key will be our system master. The nose of this cylinder is pinned to the operating shaft. The front most rotor is pinned to the rotor shaft. The secondary rotor is free floating. It is the "master ring."

Both of the above cylinders are seven pin configurations. The last configuration is an eight pin configuration, which allows us to instantly change the combination of the ACE cylinder.

The Change-Matic Cylinder hosts eight different change keys.

I worked on some of these Change-Matic cylinders for a jewelry store at one time. When they decided that a key had been compromised, the manager could use his "change key" to instantly change the keying on all the jewelry cabinets in the store. At the time it was a complete amazement. The system comes with eight operating keys and one change key.

The change key will not operate the lock bolt. It will only rotate the front most free floating rotating sleeve. This operation changes the pinning and effectively recombines the cylinder to a new, or different change key. The nose of this cylinder is pinned to the rear rotating sleeve and bolt control shaft. The change key is unique in that it has no "tab," and no internal locating key. It can, therefore,



below the outer shell. *Photograph 8*, illustrates this. Notice that the retaining pin hole is about as deep as they could have made it. It perforates the wall of the barrel all the way to the rotor. When drilling the retaining pin, be careful not to drill the rotor shaft.

As I disassembled this cylinder, I wondered why I didn't find square face drivers or mushroom pins in positions 1-3-5-7. Their addition would

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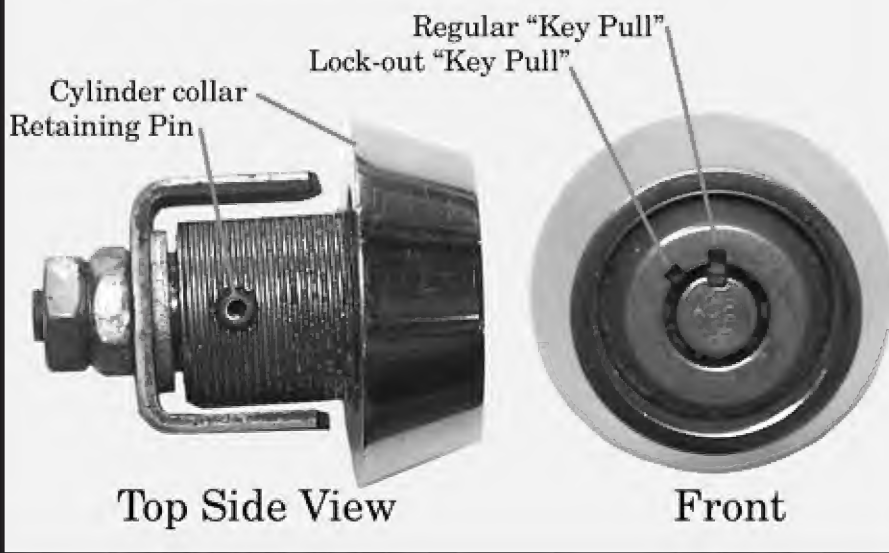
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#ICSF - 1



Lockout ACE™

9 A Lockout ACE.



picking. It's not impossible, but you'd better bring your lunch. Picking to the lockout shear line is not very difficult, but picking to the control shear line can be a little more demanding.

The cylinder is protected from wrenching by a hardened steel collar. Looking at the face of the cylinder you see that there are two key pulls. The cylinder shown is in the operating position. The customer's key will operate the cylinder to unlock the door. The key will turn 90° to the right (clockwise). The single key pull prevents the key from being removed in the unlocked position. A limiting washer (not shown) prevents the operating key from being rotated to the lockout key pull position.

If you use the lockout key to rotate the cylinder to the lockout position, you would see that the keyway in the nose would be aligned with the key pull to the left of the operating key pull position. You can tell at a glance if the cylinder is in the lockout position. When the cylinder is in "lockout," the customer key (operating or set key) will not operate the cylinder. The lockout key will not move the cam to unlock the cylinder. Its only function is to change the position of the pins to lock out the operating key.

The retaining pin is pre-drilled for extraction.

Photograph 10, shows the protective collar and retaining ring. To remove the collar, pick the retaining ring out of its groove and slip it off the rear of the cylinder. This makes the cylinder handler to work on.

I have removed the protective collar and special cam from the cylinder. (*See photograph 11.*) You will notice that I have also installed a temporary cam over the threaded shaft. This is done to keep the rotor together with the sleeves as you remove the assembly from the shell. Remove the retaining pin by tapping the pin with a 2-56 tap. Start the tap carefully and tap down until you reach the bottom of the hole. Continue to turn the tap to extract the retaining pin from the shell. The cylinder should be held in a "horizontal" position.

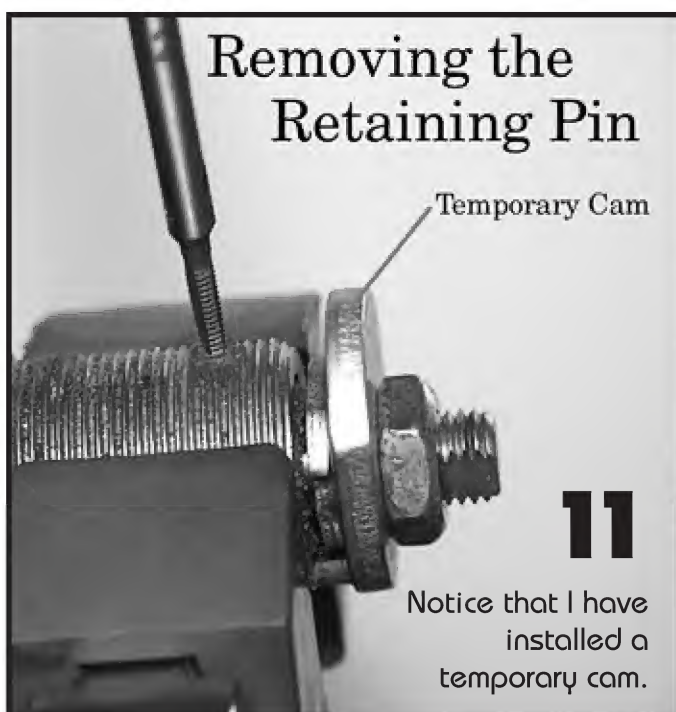
To remove the assembly from the shell, carefully follow it out with the follower tool. *Photograph 12*, shows the assembly being followed from the shell. Maintain tension between the follower and the shaft to avoid losing



be inserted into the cylinder at any of eight positions. The positions are numbered around the cylinder face.

Insert the change key at the last used combination number and rotate the key to the next desired combination. Remove the key at this position. Now, only keys of the new combination will operate the cylinder. All of the old keys are locked out. Pretty amazing stuff, until you know the trick.

The cylinder shown in *photograph 9*, is a Lockout ACE. It was taken from a U-Store-It type rental storage complex. If you have ever been called to open one of these cylinders, I'm sure you can attest to the security of this lock against



Following out the Barrel & Rotors



The assembly being followed
from the shell.

12

The control sleeve and threaded shaft is one piece. The control sleeve is center drilled to accept the pilot of the nose and lockout sleeve. The control sleeve contains combining pins to match the customer key (operating or set key). When the customer key is used in the cylinder, the pin stack, which includes the pins in the lockout sleeve, will be solved to the operating shear line. The operating shear line is between the control sleeve and the barrel. When you have solved the cylinder to the control shear line, you can rotate the lock cam.

The barrel is exactly like the barrel of all the cylinders you have seen to this point. It contains drivers and springs to load the combining pins toward the front of the cylinder. The drivers found in this cylinder were not mushroom or high security type.

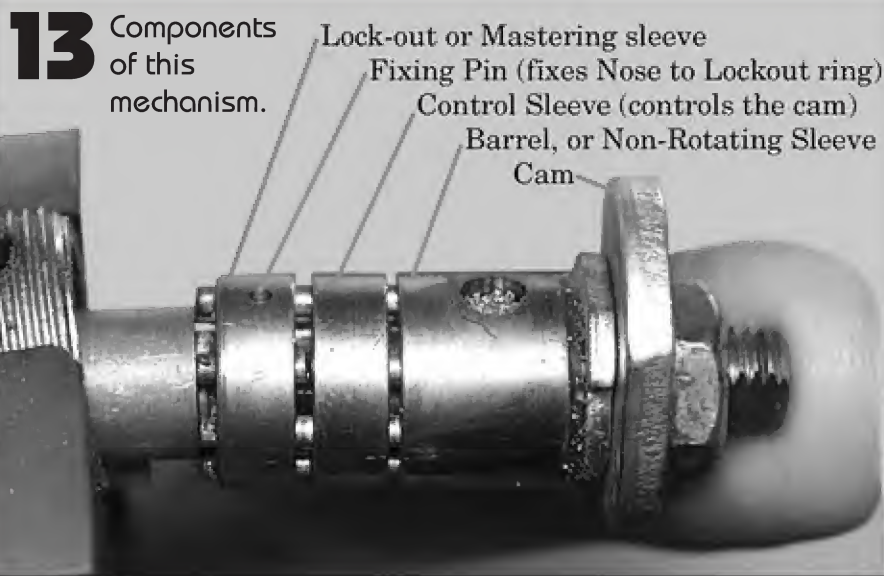
Earlier in this article, I spoke of a set of "depth keys." *Photograph 14*, shows the depth keys that are used to decode most tubular locks. This set is for "centered" configuration cylinders. Each key is numbered to indicate the cut depth. The number one key has a #1 depth cut in all of the seven positions. The number seven key contains all #7 depths. If you make yourself a set of these, you will save yourself much time and disassembly. We're going to use these to decode the lockout cylinder we just disassembled. There will be no need to disassemble the cylinder further than we have done.

— Decoding to Find the Operating Key —

Remove the shell and holding fixture from the vise. Up-end the followed out assembly in the vise, and clamp on a temporary cam. Now you know why I installed the temporary cam onto the threaded shaft. It will become the base for our decoding operation.

Photograph 15, shows the assembly clamped into the vise. The pin stacks should be aligned with the drivers. You will be decoding to find the operating key. Decode the cylinder by placing a depth key over the nose of the cylinder.

The threaded shaft is attached (actually it is one piece) to the operating sleeve. By clamping to the



13 Components
of this
mechanism.

sleeve is at the front of the cylinder. It contains combining pins to match the lockout key only. When the lockout key is used, the pins in the lockout sleeve will be solved to the front most shear line, allowing the lockout sleeve to be rotated. The fixing pin secures the nose and pilot shaft to the lockout ring. The pilot shaft

slips into the front of the control sleeve. It is not pinned in place, and can rotate freely, without disturbing the position of the cam.

14 Depth keys used to decode most tubular locks.



the pins or pin alignment.

Photograph 13, lets us identify the components of this mechanism.

The "lockout" or "mastering"

15

The assembly clamped into the vise.

Depth Key
Master Pins
Mastering Sleeve
(Lock-out)
Control Sleeve
(controls Cam)
Barrel
Limiting Washer
Cam

barrel and the rear of the operating sleeve.

Photograph 16, clearly shows the gap at the operating shear line. It is here that you will look for the pin shear lines. You will test each pin stack with the depth keys. When you have found a correct depth, the pin stack will be exactly even with the shear face of the operating sleeve.

Decode the stacks in a clockwise direction, and make the key. It's a little difficult to test the key with the cylinder in the

position you see. If you rotate the barrel away from the shown position, the spring drivers will jump up between the pins of the rotor and jam. This would prevent further rotation of the barrel.

To test the key, place the cut key over the nose and sight the bottoms of the combining pins at the control shear line. Good light and a little magnification is a big help here. Use an otoscope to examine the shear line. Insure that you have correctly cut your operating key.

— Decoding to Find the Lockout Key —

If you have made the operating key and need a "lockout" key, the process is very simple. Place a key over the nose of the cylinder and loosen the vise. Move the cylinder from the vertical position that we have been using to a horizontal position and clamp the cam securely. In previous disassemblies, we have placed the cylinder in a horizontal position to allow us to remove the rotor without losing the combining pins. Grasp the key and mastering sleeve together, and ease the assembly off the front of the cylinder. Be careful not to drop any of the combining pins.

You will have a loaded "rotor" and key in your hand. The vise will hold the barrel and operating sleeve rotor

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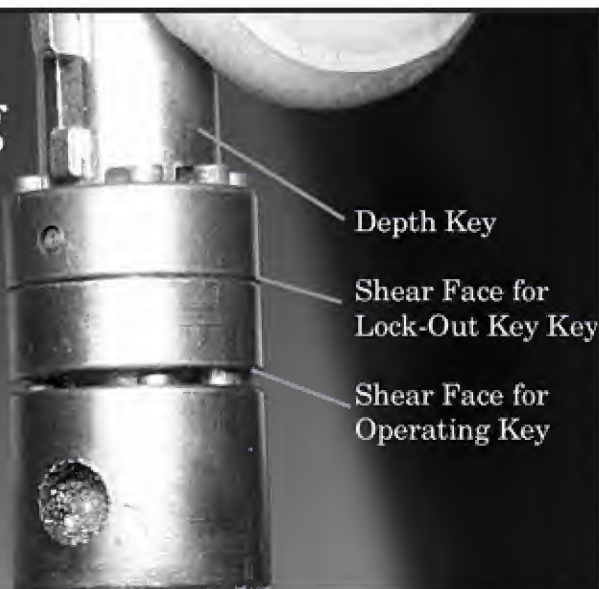
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#SO - 1, SO - 2, SO - 3, SO - 4, SO - 5

Decoding the Cylinder

16

The gap at the
operating
shear line.



Assemble the sleeve over the "upright" Assembly

17

Slip the shell over
the assembled
cylinder.



Align the Holes for the Retaining Pin

18

Align the
retaining holes
of the shell and
barrel.



pin heights with the new key over the nose. When you are satisfied that you have made a good key, install the master rotor back into the cylinder you left in the vise, keeping the key over the nose. Grasp the assembly together, and up-end the cylinder back to a vertical position.

Reassembling the Cylinder

Assemble the cylinder in the vise. (See photograph 17.) Carefully slip the shell over the assembled cylinder. If you trip on one of the combining pins, it is spring loaded and will take flight. Watch what you're doing and avoid hunting for the errant pin under the bench. Press the shell over the pins and align the retaining holes of the shell and barrel. (See photograph 18.) Pin the shell in place with the retaining pin removed earlier to complete the job.

If you worked down through this article without dropping a pin, give me a call. You're my kind of locksmith. I'm sure there are other

methods for servicing these cylinders, but I have only offered those that I have found most successful. Tubular cylinders can be very profitable for the locksmith that becomes familiar with them.

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#FRM - 1

complete with the pins and springs. Up-end the key to avoid losing any of the combining pins. Now, use your depth keys to find the cuts that match the pins in the master or lockout sleeve. Read the cuts in a clockwise direction and make the key. Test the key by observing the shear face and

Card Entry Systems *from RCI*



by
**Richard Allen
Dickey**

Rutherford Controls Int'l Corp. or RCI for short, has a pair of very attractive magnetic card readers that satisfy two different security needs.

The 9310 and the 9311 Easy Read Card Readers appear identical from the outside, but it allows a customer to choose between high security or an ease of installation while saving a few bucks. (*See photograph 1.*)

The readers do not require any kind of computer software or extensive wiring to operate. Both will support up to 1000 users. Read on and let me tell you a little about what RCI has to offer.

The 9310 Card Reader

The RCI 9310 is a self-contained card reader designed to be very easy to install. When I say very easy, I do mean very easy. The card reader has everything built right in. (*See photograph 2.*)



1. The 9310 and 9311 look identical.



2. The 9310 as seen from the front.



3. The backside of the 9310 has 3 pairs of wires exiting.



4. Set screw to lock the reader in place after installation.

There are three pairs of wires exiting the back of the reader. (See photograph 3.) The black pair is for power, the gray pair is for a request to exit button and the white pair is used to activate the locking device or a remote relay.

The card reader is mounted with two screws to any flat surface. The reader is 1-5/16" wide and 3-1/2" tall. The bottom of the reader has a setscrew that locks the reader in place. (See photograph 4.)

The three sets of wires are intended to pass through the wall from the unsecured side of the door to the secure side. On the secure side of the door, your connections are very simple and safe.

Power Requirements

Power requirements for the 9310 are 12 Volts AC or DC. The 9311 requires 12 Volts DC. If AC is used for the 9310, polarity is not important. Power can be supplied to the reader either from a small plug in power supply (see photograph 5) or from a larger power supply with a battery backup. Although not required, a battery backup is nice to have and will maintain security and accessibility to a secure space.



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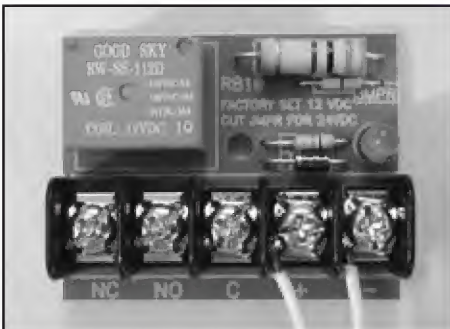
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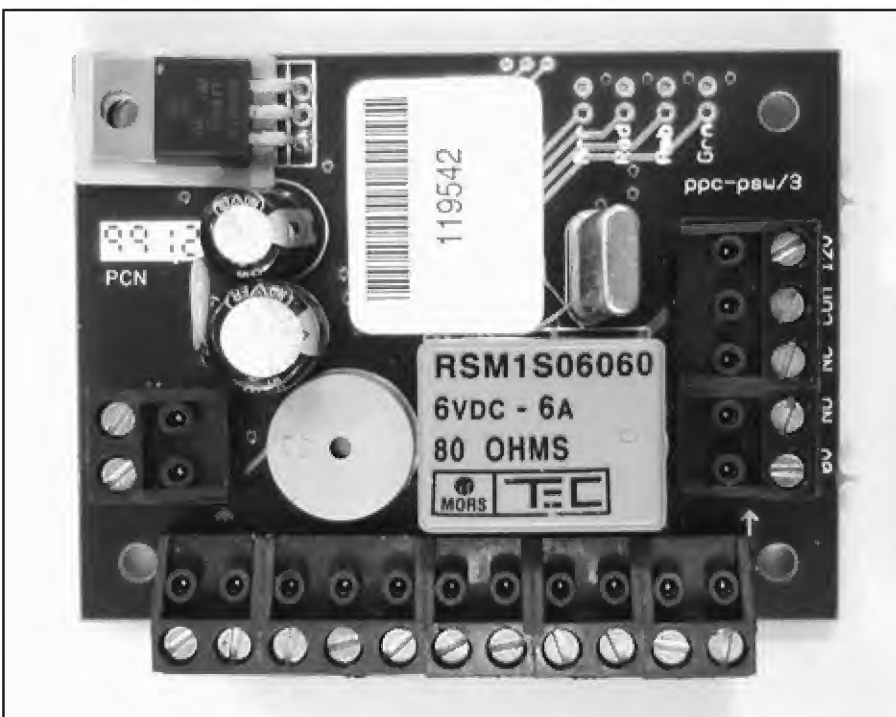
#TNL - CD1



5. Typical power supply.



6. Relay module supplied with the 9310.



7. The connection side of the 9311 control module.

Weather Proof

Both the 9310 and 9311 readers are waterproof. RCI instructs that you do not use any type of sealant behind the reader when installing. A sealant could allow condensation to build up which may have long-term effects on the reader.

Auxiliary Locking Devices

Any type of electrified locking device can be connected to the 9310 and 9311. There is only one thing to consider. If the locking device draws more than half an Amp, (500 mA) an additional relay module needs to be used. The white wires from the card reader activate the relay module included with the 9310. (See photograph 6.)

Power Supplies

An additional power supply will be needed to power the locking device. This additional power supply is connected to the locking device through the relay module. The relay module is rated for 10 Amps at 24 Volts.

9310 Bypass

On a difficulty scale from 1 to 10, I would give the 9310 a "2". It doesn't get much easier to install a card reader system than this one. Although the 9310 is easier to install and less expensive than the 9311, it does have one disadvantage. It is not a high security device. If a knowledgeable person removes the reader from the outside

wall, it can be defeated. Shorting the gray wires would trick the reader into thinking that a request to exit signal had been sent from someone inside the secure space, ultimately releasing an electric strike or electromagnetic device securing the door.

The 9311 Card Reader

The 9311 is a high security device. The actual brains of the system are located on a separate circuit board that is mounted inside the secure space. (See photograph 7.) Shorting or cutting the wires from the reader will not defeat the system.

Like the 9310, the 9311 can power a locking device that uses 500mA or less. If more than 500mA is required, an additional power supply is needed. The use of a separate relay module is not necessary since the main circuit board has a six Amp relay just for this purpose built in.

Wiring Configurations

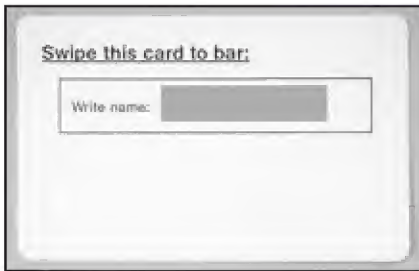
The wiring diagram supplied with the reader shows four different possible wiring combinations, which allow for a lot of flexibility with the installation. Since the 9311 has more parts than the 9310, there is more to install. On an overall difficulty rating of 1 to 10, I would give the 9311 a "4". This is a very easy system to install and when done properly, very secure.

Programming

The 9310 and 9311 are programmed exactly the same way. The card reader comes with a Master Card, a Lock Mode Card (see photo-



8. Master and lock mode cards used to program the card readers.



9. A paper enrollment card.



10. A typical ANSI track 2 compliant card.

graph 8) and 100 Enrollment Cards. As mentioned earlier, up to 1000 users are allowed

Initial Use

When the card readers are powered up for the first time, the green, yellow and red light will remain on and the green arrow will flash. Swiping the "Master Card" through the reader initializes the system. The reader will beep twice and all lights will turn on. It can now be used.

Fail Safe or Fail Secure

The reader can be set to operate in a fail-safe or a fail-secure mode by swiping the lock mode card through the reader. If a successful change was made, the reader will beep three times. It is just as easy to change back if you realize you made a mistake.

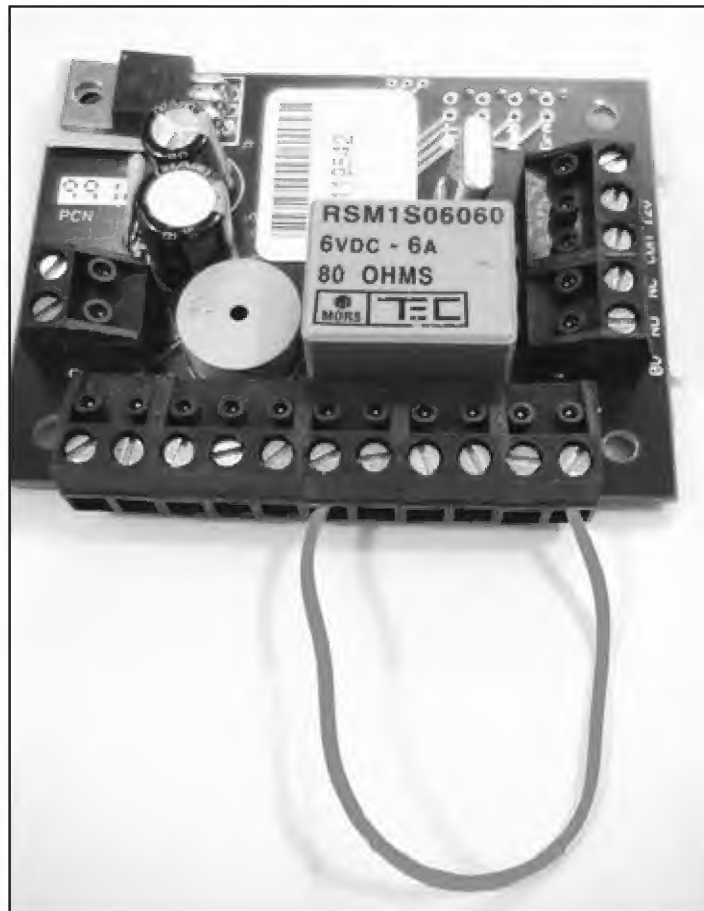
Door Open Time Setting

The "Door Open Time" is set by swiping the master card through the reader. The reader will start to chirp. After waiting the length of time you want the door to remain unlocked, swipe the master card again. The second swipe stops the internal clock and sets the amount of time that the lock will remain open.

Add a User

To add a user to the reader first take a paper card form the "Shadow pack" and write the new users name in the space provided. (See photograph 9.) Now swipe the shadow card through the reader. The reader will beep once and have a flashing arrow.

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11. Reset jumper for the 9311.



12. The 8310 Electromagnetic lock from RCI.

The lights will then go out. Now swipe any ANSI track 2 encoded card through the reader. You can use the person's credit card or anything else that is ANSI track 2 compliant.

I used the Wal-Mart gift card shown in photograph 10, for my testing and it works fine. The reader

will beep three times and all lights will come on. That person's card is now entered into the system. Store the shadow card in a safe place.

Delete a User

To delete a user from the system all you have to do is take the shadow

card used to enroll the user and swipe it through the reader. The reader will beep three times, all the lights will go out and then come back on. Sounds almost too easy doesn't it?

Power Loss

If the card reader loses power it does not lose any of the user information that you entered. That information is there forever or until you perform a reset. Resetting the reader will return it to the factory settings. All user information is lost. The process is a little different for the 9311 than for the 9310. Let's look at the 9310 first.

Resetting the 9310

To perform a reset on the 9310, just swipe the master card backwards through the reader two times. The lights will do their thing again and the reader is ready to start programming. When the reader is reset, the door open time is 7 seconds. It is set for fail locked operation and no cards are valid.

Resetting the 9311

Resetting the 9311 takes a few more steps than the 9310. The first step is to remove the power going to the control board. Insert a jumper wire between terminals 8 and 13.



13. Electro-magnetic lock with cover removed for circuit board access.

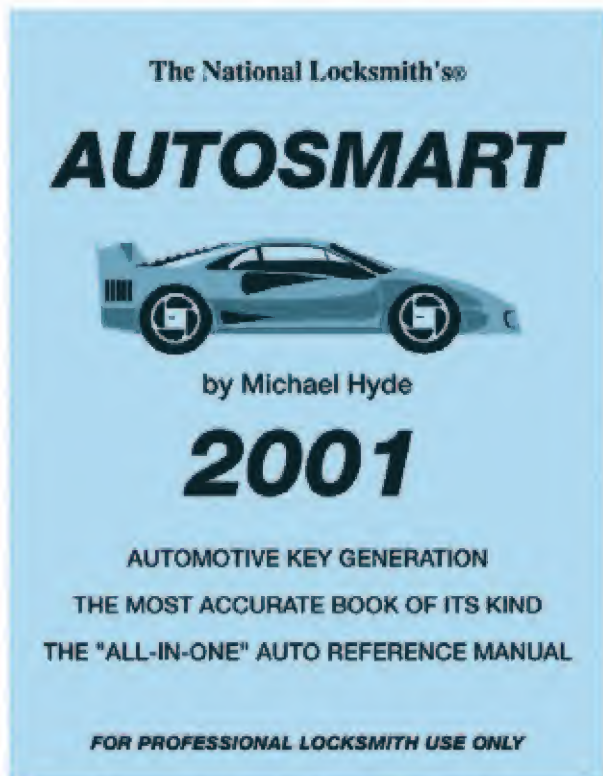
(See photograph 11.) Reconnect power and the control board will beep continuously. The beeping means that you got a good reset. Remove the power and then remove the jumper you just installed. This puts the system back to the factory settings. The 9311 settings are identical to the 9310 factory settings.

The 8310 Electromagnetic

Now that we have gone over two-card readers available from RCI, we need something to connect them to.

RCI has a magnetic lock that will work nicely with the 9310 and 9311 card readers. It is the 8310 electromagnetic lock. (See photograph 12.)

The 8310 has several features that make it desirable. First of all it has a circuit board built into the housing with an access door that is secured with a screw. (See photograph 13.) The circuit board is where all of the wiring connections are made. (See photograph 14.)



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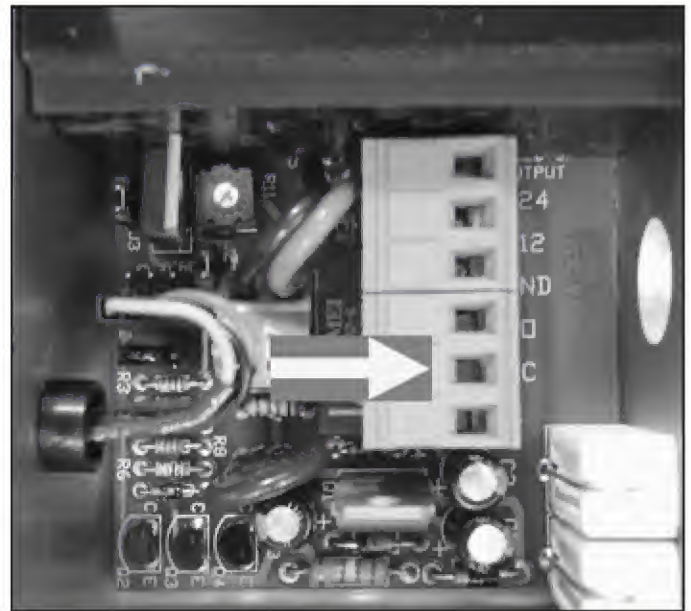
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Power Requirements

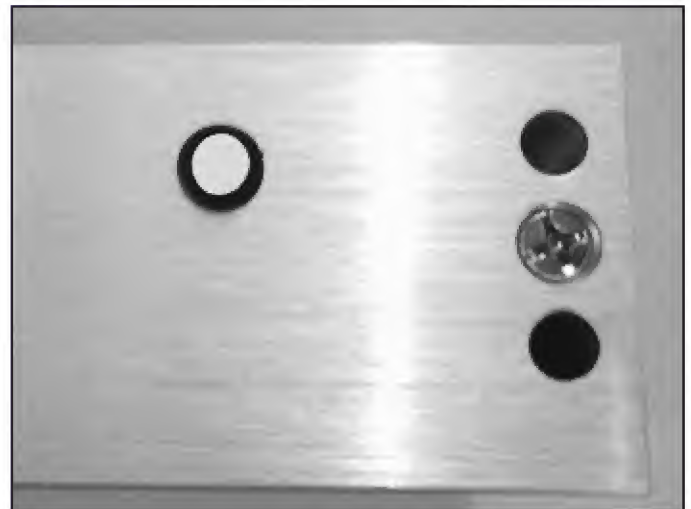
The electromagnetic lock will operate on either 12 or 24 Volts DC. There are two different power connections on the circuit board. One for 12VDC and another for 24VDC. (See photograph 15.) There is also a "Lock status sensor" on the circuit board. (See photograph 16.) This is a normally open and a normally closed connection that changes state when the electromagnetic lock is sent its signal to open.

Status Indicator

On the bottom side of the electromagnetic lock is a two color LED that is a status indicator. (See photograph 17.) No light from the LED means no power. A green LED is for a secure lock and a red LED is for unsecured.



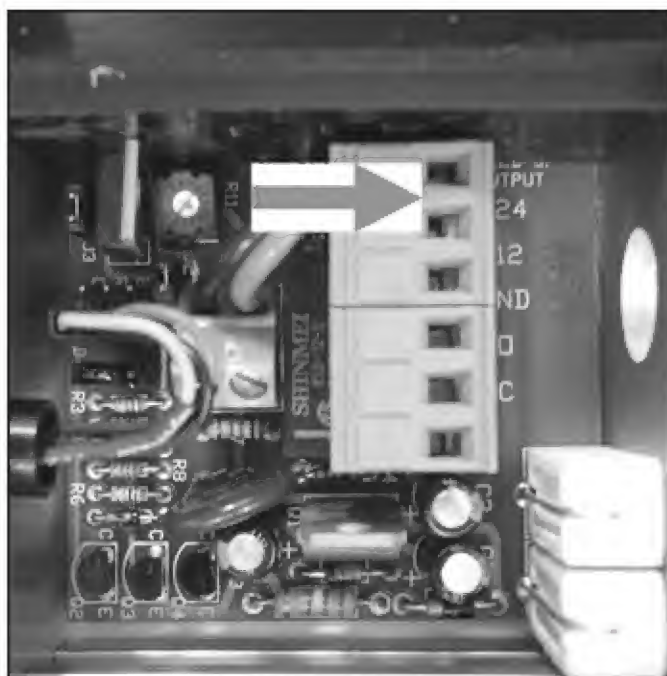
16. Lock status sensor connections.



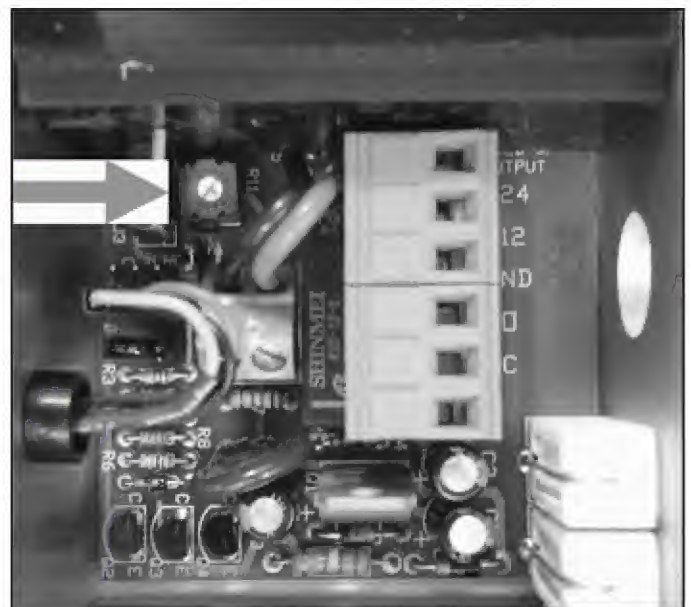
17. LED status indicator on bottom of 8310.



14. Built in circuit card of the 8310.



15. Power connections.



18. Relock delay adjustment.



19. 8310 with mounting bracket.

Relock Delay

Located on the circuit board of the 8310 is a small potentiometer (variable resistor) that is a delay relock feature. (See photograph 18.) The delay can be adjusted from 0 to 110 seconds.

Installation

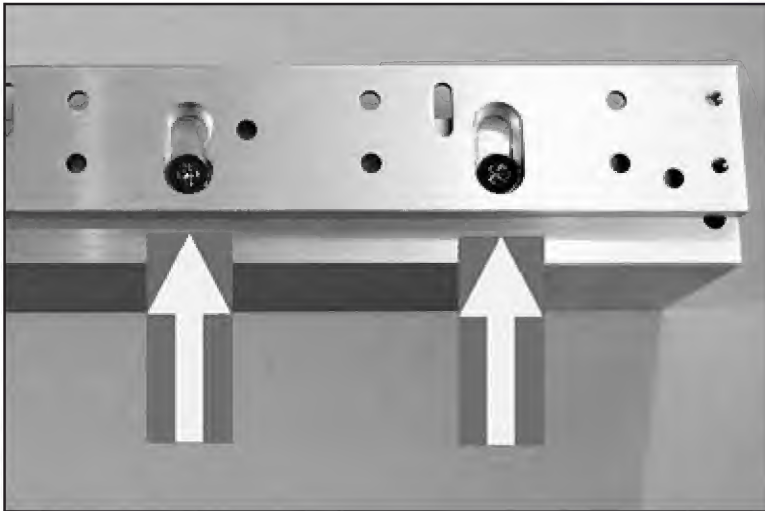
This electromagnetic lock is surprisingly easy to install. A separate mounting bracket is installed first. (See photograph 19.) Then the unit slides onto the bracket. (See photograph 20.) The 8310 is secured to the bracket with four Allen head screws - one in each corner - that are built into the unit. The nice thing about the built in screws is that there are no parts to loose. This electromagnetic lock has a lot of options and features that are built right in.

Conclusion

The combination of the RCI card reader and electromagnetic lock will satisfy the needs of all but the pickiest customers. The ease of installation makes both the 9310/9311 and 8310 electromagnetic lock very appealing.

For more information about the Rutherford Controls Int'l Corp. products call: 1-800-899-5625 or circle 319 on Rapid Reply. 

20. 8310 sliding into the mounting bracket.



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#ASA - 2000

Quick Entry

UPDATE

by
Steve
Young



2000 MITSUBISHI ECLIPSE

The 2000 Mitsubishi Eclipse is a radical departure from earlier Eclipse models. (See *photograph 1.*) Not only is this model equipped with the new Strattec lock system, but it also has one of the best protected latch systems that I have ever seen. Instead of the customary linkage rods used to connect the latch to the inside handle and lock control, the Eclipse is equipped with bicycle-style cables inside the door.

In addition to the cables inside the door, the new Eclipse unlike earlier Mitsubishi vehicles, is also equipped with extensive shields to protect the latch and all of the bell-cranks that connect to the cables. (See *photograph 2.*) The use of the cables and the shields effectively eliminate the use of traditional "inside the door" style tools to unlock the Eclipse.

In addition to all of these features, the new Eclipse is equipped with something that I have never seen before. There is a stiff rubber blade positioned against the rear half of the outside surface of the window glass about four inches deep inside the door. This blade acts as a squeegee to remove water from the glass when the window is rolled down. In addition, it holds tension on the window preventing vibration while the vehicle is in motion. Most of all, it almost completely prevents you from inserting tools into the door.

It is possible to slip a tool past the rubber blade, but once you do, you will have almost no freedom of movement with the tool inside the door. Only in the forward part of the door can you insert a tool without having to fight this rubber blade.



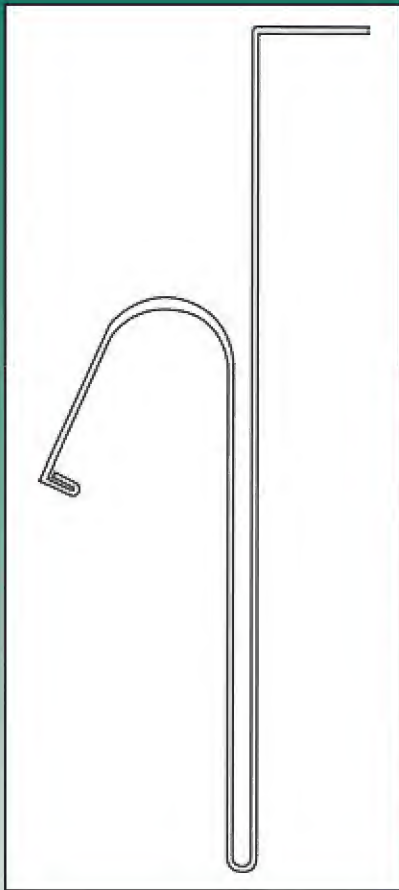
1. 2000 Mitsubishi Eclipse



2. The bicycle-style cables are easily visible. Note the plastic shield that surrounds the latch as well.

3. Carefully wedge open the base of the window as far forward as possible.





A. The Tech-Train 1026 tool.



4. Remove the wedges before pulling the tool up into the passenger compartment.



5. Use the tip of the tool to operate the inside lock control rocker.

Quick Reference Guide

Vehicle: 2000 Mitsubishi Eclipse	Bitting: Ignition, doors and trunk 1 - 8
Direction Of Turn: Counter Clockwise (passenger side)	Lock Manufacturer: Strattec
Tool: TT-1026	Code Series : F1 - F1571
Lock System: Mitsubishi 8-cut system by Strattec	Key Blank : Strattec 598992, Ilco X263, Curtis MT-6
Security System: PassKey II (VATS)	

The window glass also extends deeper into the door when it is in the raised position than on most other vehicles. This prevents most of the "under the window" style tools such as the Tech-Train 1015 tool from unlocking the Eclipse. If you attempt to use one of these tools, the lower bend of the tool will contact the bottom edge of the window glass before the tip of the tool is free of the weather-stripping inside the car.

The Tech-Train 1026 tool (the only new Tech-Train tool for this year) was introduced specifically for this vehicle and the Toyota Celica, which is very similar to the Eclipse. (See illustration A.) The lower portion of the TT-1026 tool is longer than on most "under the window" tools while the upper portion is somewhat shorter and angled away from the body of the tool. This configuration allows the tip of the tool to enter the passenger compartment and operate the inside lock control with relative ease.

To unlock the Eclipse using the TT-1026 tool, begin by wedging open the weather-stripping at the base of the window near the front. (See

photograph 3). Because this vehicle is also equipped with multi-layer weather-stripping, you will need to use caution while inserting your wedges. If the tip of your wedge is not properly inserted between the glass and all of the layers of the weather-stripping, the lower layers of the weather-stripping will roll under your wedge. This will greatly reduce your ability to insert the tool and it may damage the weather-stripping. If you insert a plastic card or plastic putty-knife between the weather-stripping and the glass and then insert the wedge between the plastic card and the glass, you eliminate the possibility of damaging the weather-stripping.

Once you have an opening into the door cavity, insert the tool with the tip pointed toward the front of the vehicle. Work the tool into the door until you feel the upper bend in the tool pass below the base of the window glass. Carefully pull upward on the tool until you can see the upper part of the tool begin to come up past the inside weather-stripping. As soon as you are sure that the tool will pass the weather-stripping, stop pulling up on the tool, and remove the wedges.

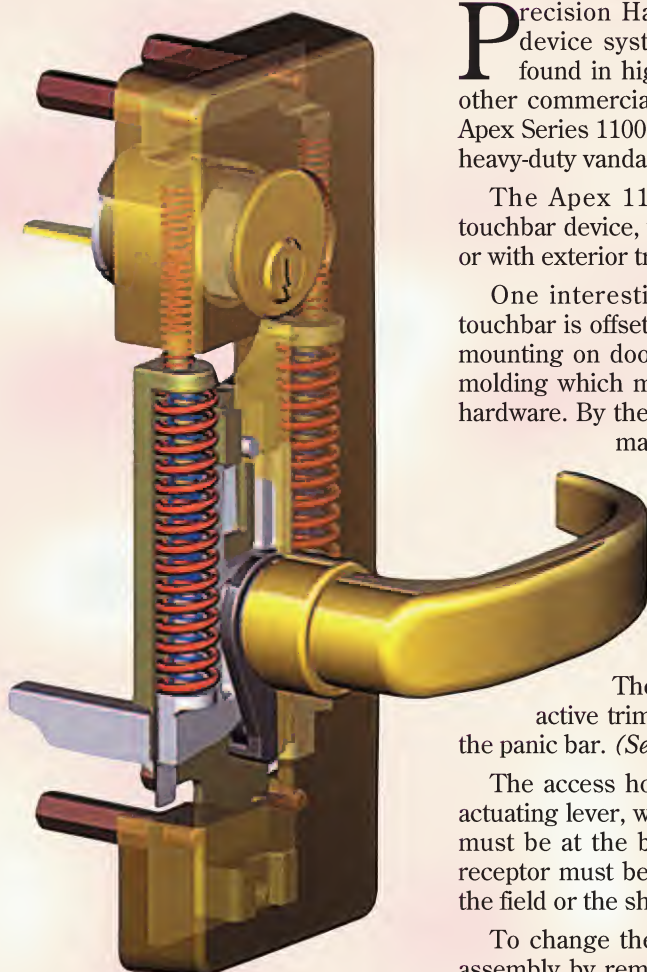
Failure to remove the wedges may put too much strain on the window glass, causing it to break. After the wedges have been removed, pull up on the tool until the tip is free of the inside weather-stripping. (See photograph 4.) Once the tip of the tool is inside the passenger compartment, use the tool to operate the inside lock control rocker. (See photograph 5).

There is no frame around the upper portion of the window glass on the Eclipse. This presents another possible method for unlocking the Eclipse by using a long-reach tool such as the Jiffy-Jak. Unfortunately, the trim around the top of the window glass makes this type of an attack very difficult.

To insert the tool between the window glass and the weather-stripping, the glass must be wedged open more than on most vehicles. Even when using an inflatable wedge, it would be entirely too easy to break the window glass with this type of opening procedure. For that reason I do not recommend attempting to unlock the Mitsubishi Eclipse with that method. **TNL**

PHI

goes to school



1. The V39L trim is identical to the standard 39L trim from the inside, but not inside.

2. The Apex 1100 rim mounted panic bar with the V39L trim.

Precision Hardware, Inc. (PHI) has developed an exit device system designed to resist the abusive attacks found in high use areas, such as schools, hospitals and other commercial applications. This article looks at the PHI Apex Series 1100 series rim exit device coupled with the V39L heavy-duty vandal resistant trim. (See photograph 1.)

The Apex 1100 series exit device is a rim mounted touchbar device, which can be mounted as an exit only device or with exterior trim such as the V39L. (See photograph 2.)

One interesting feature of the Apex series is that the touchbar is offset from the stiles about a quarter inch to allow mounting on doors with glass. This quarter inch allows clearance for any glass molding which may hamper the installation of completely surface mounted exit hardware. By the way, this exit device will also mount a bit easier on a door that may be a bit warped. The 1/4" gap avoids the need for the added costs of shim kits. (See photograph 3.)

The Apex 1100 series rim exit device is an easy device to install. If the device is intended for exit only without outside trim, it is not necessary to hand the device. If the device happens to be of the opposite hand, simply turn the whole unit over so that the latch is on the proper side of the door. If active exterior trim is to be used, handing becomes important.

The trim and the device are handed to allow the yoke finger of the active trim to pass through the backplate assembly of the stile chassis of the panic bar. (See photographs 4.)

The access hole for the yoke finger on the backplate assembly exposes the actuating lever, which retracts the latch. When using active trim, this access hole must be at the bottom of the stile and if a key cylinder is used, the tailpiece receptor must be on top. (See photograph 5.) Handing is easily accomplished in the field or the shop.

To change the hand of the 1100 series stile chassis, remove the back plate assembly by removing the four corner screws. (See photograph 6.) In this case, the screws are flathead. Rotate the lock stile chassis 180 degrees. (See photograph



**by Giles
Kalvelage**





3. Note the 1/4" gap between the touchbar and the door.

7.) Reattach the backplate assembly with the four screws.

The strength of the system is derived from the heavy-duty exit device and the vandal resistant trim. Unlike standard trim, where the outside lever transfers all of the use and abuse to locking mechanisms inside the trim or exit device, PHI's vandal resistant trim utilizes a heavy "quad" spring shock absorber system with a split yoke made from investment cast stainless steel. (See photograph 8.)

When the lever is rotated, the force to the actuator must first pass through two sets of double springs. If the exit device is unlocked, the



4. The backside of the touchbar stile chassis.



5. The yoke finger from the inside with the chassis cover removed.

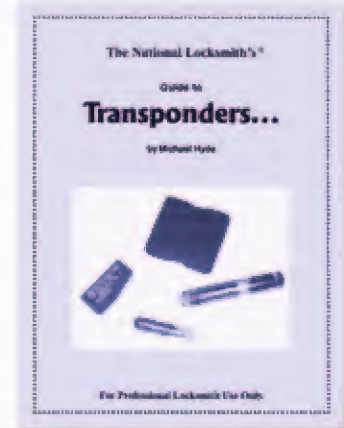
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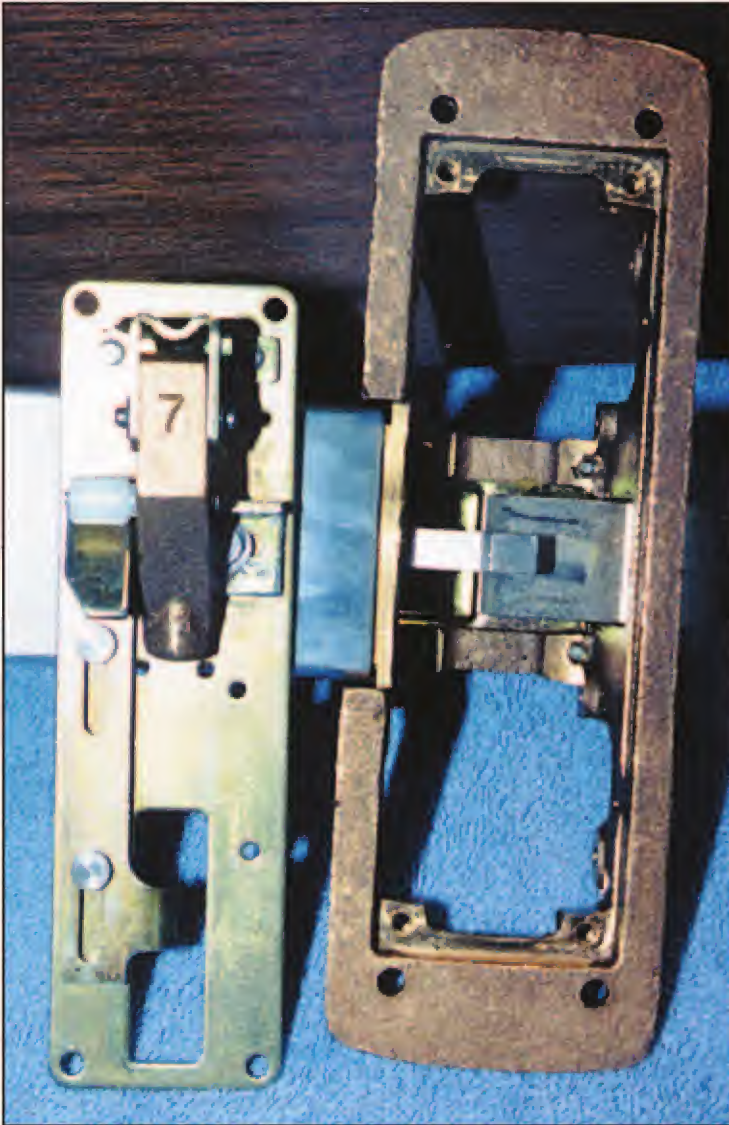
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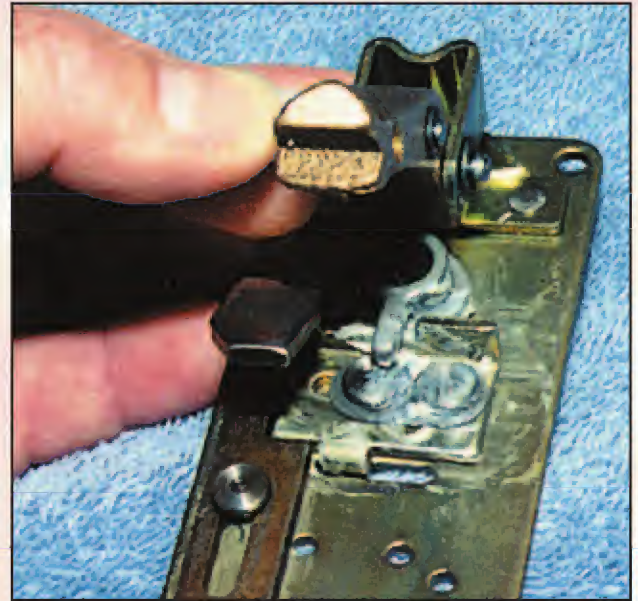


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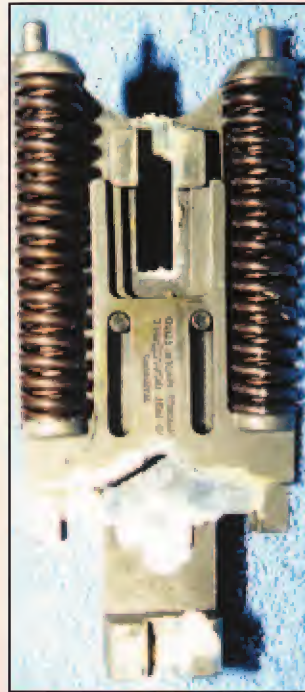
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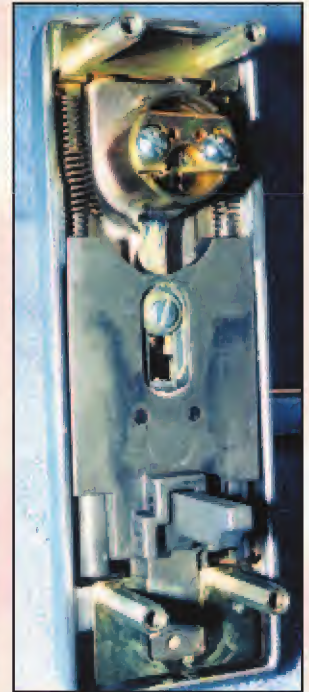
6. The object on the left is the inside view of the backplate as removed from the chassis.



7. The lockplate, which will prevent the liftbar from raising.



8. Inside view of the V39L yoke assembly.



9. Remove the #10 screw and two bottom studs.

springs are heavy enough to allow the actuator operate the exit device latch without compressing. If the exit device is locked, the springs compress against the force of the lift stopping against the exit device latch system. If forced, the lever will still rotate, but the exit device will not open. When the force is removed from the lever, the lever will automatically return to the "rest" position instead of remaining in a disengaged state like other devices. Likewise, the "quad" spring system rather than the locking device would absorb shock force, such as would be generated by kicking the lever.

The V39L outside trim reverses hand as easily as the touchbar stile chassis. Remove the #10 screw in the center of the of the yoke assembly. (See photograph 9.) Remove the two

bottom studs and the bottom hold down. (See photograph 10.) Now remove the yoke. Keep an eye on the operational springs, which attach to the upper spring bracket. They usually won't fly away, but without the yoke they could fall away and become lost. (See illustration A.) It wouldn't be a bad idea to slide them off of the spring bracket and put them aside for safe keeping. (See photograph 11.)

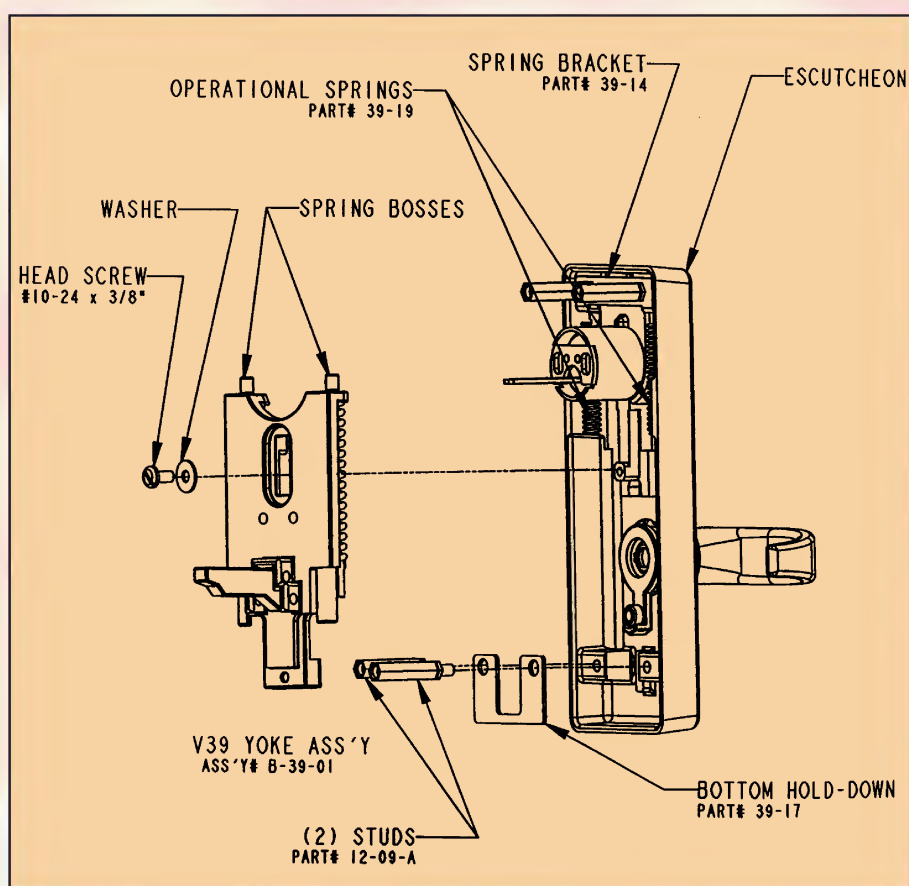
Next, remove the truarc retaining ring from the lever



10. Remove the bottom hold down.

assembly. This will allow the lever to release from the beam. (See *photograph 12*) Don't loose the beam roller, a bushing which fits over a boss on the beam. Keeping the beam in place, remove the lever and rotate it 180 degrees. Reattach the lever to the beam and reinstall the truarc ring. Reassemble the trim by reversing the disassembly procedure.

Installation of the exit device to the door is easy. If the exit device is installed less trim, only four holes need be drilled into the door for the lock stile chassis. I like to leave drilling the holes for the end cap bracket until last. Also, two holes will need to be drilled for the installation of the strike. The installation template, hole drilling schedule and lock stile case template, will assist the technician with the location and size of drill holes. An installation requiring outside trim is only a little more complicated. If the function of the trim requires an outside key cylinder, a hole must be drilled for that, and of course, if the function requires handle activated latch retraction, an elongated hole must be drilled to accept the yoke finger. (See *photograph 13.*)



A. Keep an eye on the operational springs.

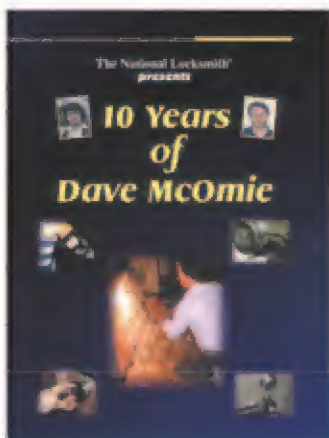
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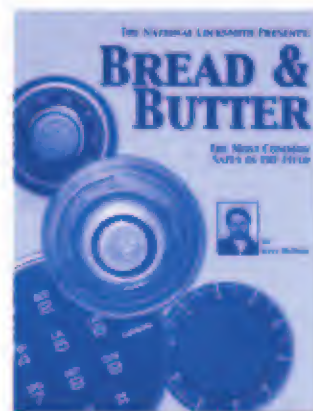
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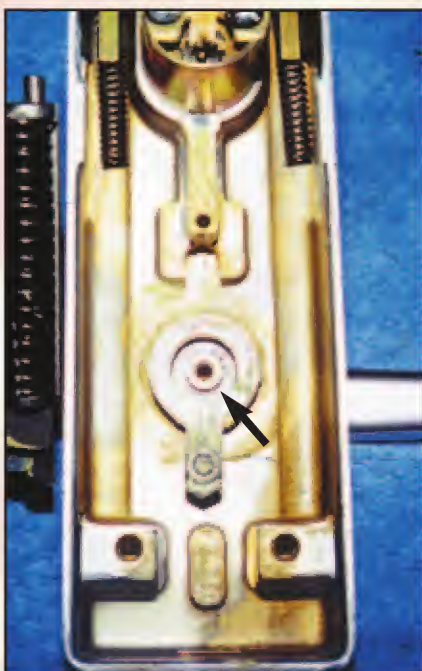


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#BB - 01



11. After removing the yoke, make sure the operational springs don't fly away.



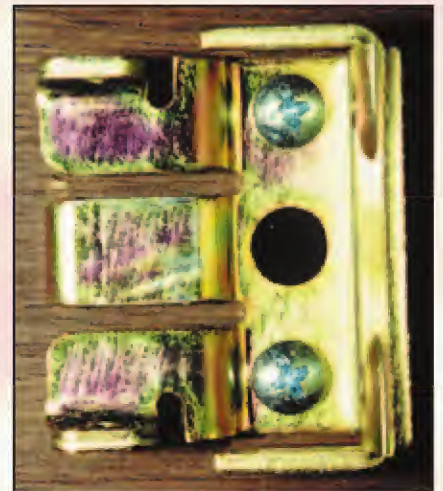
12. The lever assembly truarc ring.



13. The hole pattern for the stile chassis and trim.



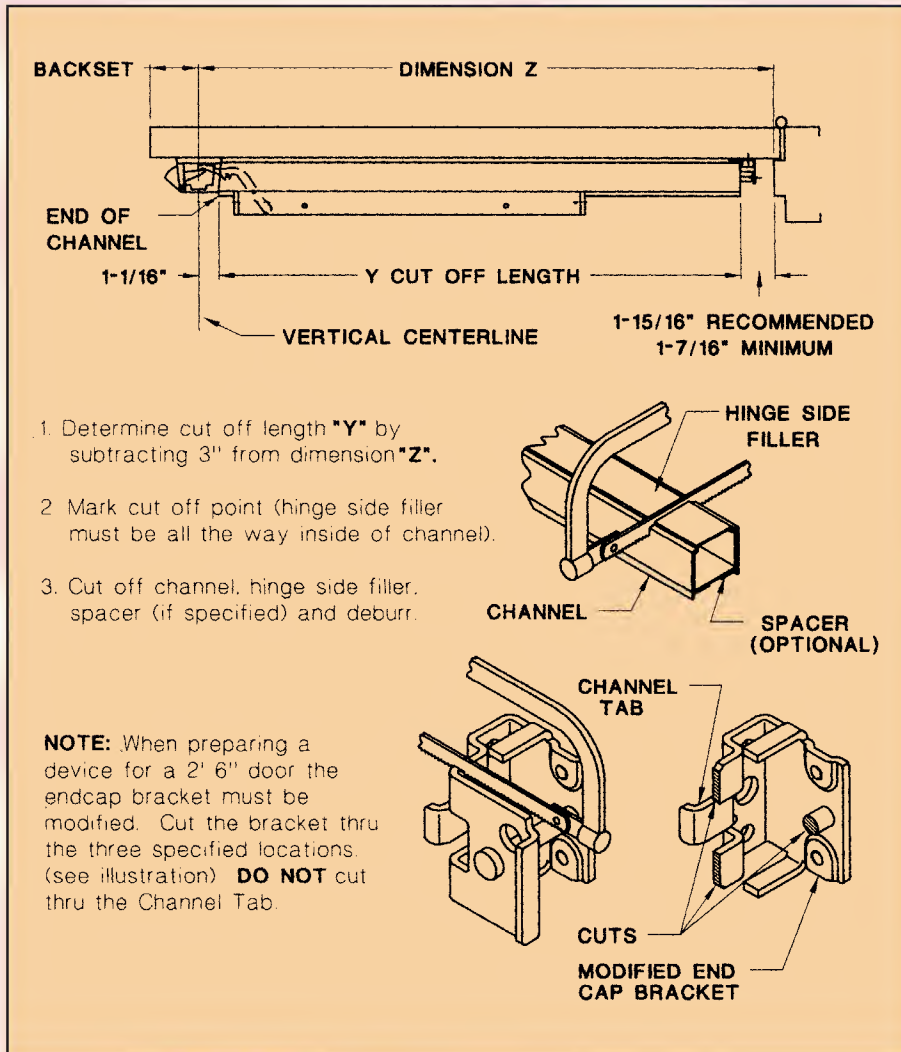
14. The stile chassis mount right into the door or onto the trim.



15. The end bracket mounted onto the door.



16. Install the chassis cover using four screws.



B. Procedure for shortening the touchbar and end bracket.

The yoke finger and the cylinder bar or tailpiece must project out from the inside face of the door at least 1/4" to provide positive contact with the exit hardware. It should however, be more than 5/16" to prevent binding on the hardware mechanisms.

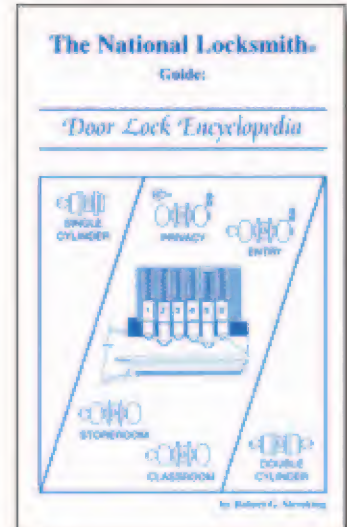
Once the holes have been drilled, apply the trim to the door, if trim is to be used. Next, apply the device stile chassis. (See photograph 14.) If trim is used, the stile chassis will be mounted into the trim, sandwiching the door. Next, insert the endcap bracket into the touchbar and lift the bar so that it is vertical. Using the holes in the bracket as a guide, mark the holes, drill and install the endcap bracket. (See photograph 15.) Install the stile chassis cover at the latch side of the touchbar with four screws. (See photograph 16.) To finish the installation, mount the strike on the jamb using two screws.

Finally, while most applications will not require the shortening of the touchbar, doors of 2' 6" or less must be shortened. To prevent the end cap from hitting against the hinge side jamb, there must be a minimum of 1-7/16" between the end of the touchbar itself (excluding the endcap) and the jamb. PHI recommends at least 1-15/16" space. (See illustration B.)

While the rim exit device covered in this article is rated for panic, the Apex series also is available in a fire rated version. Additionally, it is available in panic and fire rated vertical rod, concealed vertical rod and mortise designs. The V39L exit trim is identical for all versions except the mortise design. All versions are available with optional cylinder dogging.

For more information contact Precision Hardware, Inc. at: 734-326-7500. Circle number 322 on Rapid Reply. **TNL**

Door Lock Encyclopedia



The ability to remove a lock from a door, disassemble the mechanism, and remove the lock cylinder for service is not always a simple straight-forward task.

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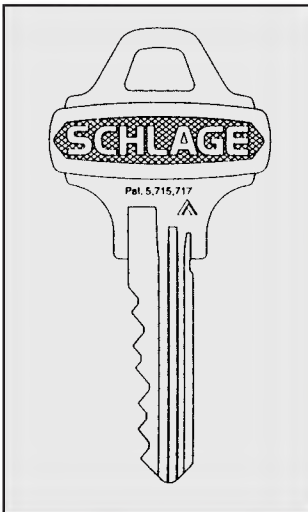
#DLE

BEGINNER'S CORNER

Schlage Everest



by
**Jim
Langston**



1. Everest features a larger key bow.

Everest is the name given to a growing family of patented key products introduced by Schlage Lock. (See illustration 1.) Everest products are distinguished by the patented under cut groove milled into the right side of the key blade. (See illustration 2.)

The first product in this family was the small format interchangeable core (SFIC) introduced to retrofit 7-pin Best style IC products. A special service manual is devoted to that product.

Except for the keyway and special pin which checks for the lip on the side of the key section, Everest full size cylinders are virtually identical to Schlage classic cylinders with the "C" keyway which have been around since 1935. You get the benefits of the new patent without the need to invest in new pin kits, key

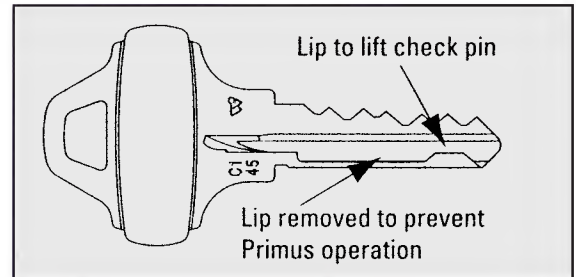
machines or additional service equipment. However, Triad-D-Series cannot be cut on a key biting punch.

Schlage Triad "C" keyways are protected by a U.S. Utility Patent against unauthorized manufacture and distribution. It is sold where the end user wants fast and easy key duplication without any formalities. It is considered an "open" keyway, which can be stocked and sold by all locksmiths. The purpose of these keyways is to guarantee the end user genuine Schlage quality replacement keys. The Triad "C" keyways are seen in illustration 3.

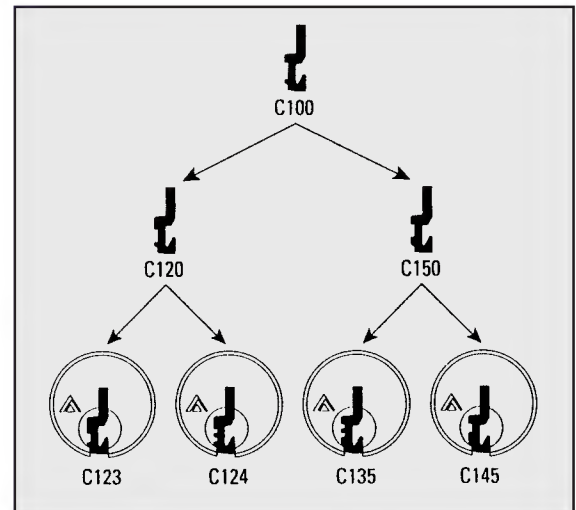
The restricted keyways for end users that want restricted keys with patent protection, Schlage offers its Triad "D" series. These are protected by the same patent and require a letter of authorization from the end user. Note: The difference between the Triad "C" and the Triad "D" series is just the keyway. Key cutting and other servicing is the same. Primus cylinders will be available with Everest keyways in the future.

Illustration 4, is a mechanical overview of the Triad lock cylinder. The only thing different about the Everest cylinder is the check pin and spring, which go in the special chamber on the bottom of the plug toward the back. If you are using a key to remove the plug, the key will hold these parts in place. (See photograph 1.)

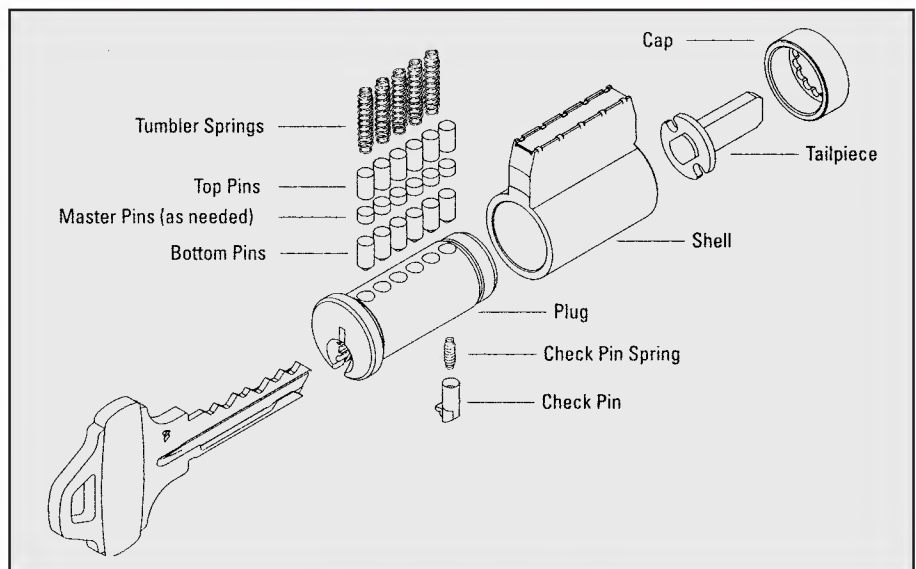
You will see that the plug will come apart like all standard Schlage cylinders, as long as the Triad key is in place. (See illustration 5.) Illustration 6, shows how



2. The patented under cut groove.

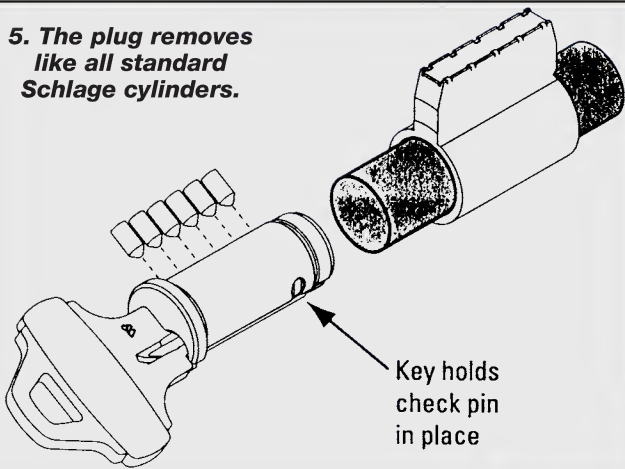


3. The Triad "C" keyways.

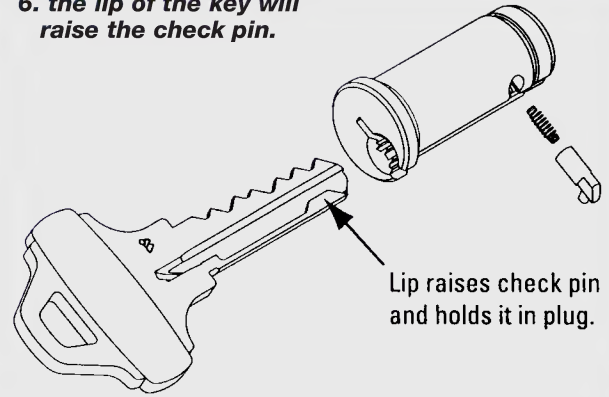


4. A mechanical overview.

5. The plug removes like all standard Schlage cylinders.



6. the lip of the key will raise the check pin.



1. The Everest check pin and spring location.

the check pin works and how the lip of the key will raise the check pin.

Rekeying When There Are No Keys

When no key is available, you can use standard locksmithing techniques to shim the cylinder open. The check pin must be taken into account. Follow these steps:

1. Using a pick or key blank, shim the six pins as usual. (See illustration 7.) After the last pin is neutralized, the plug will not rotate or slide out because the check pin is still engaged.

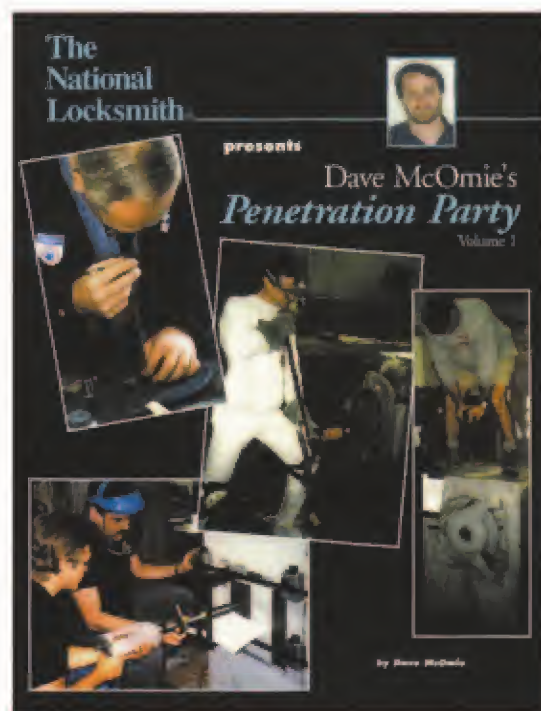
2. Leaving the shim in place, insert a setup key with no steeples between the deep cuts. This unlocks the check pin and will also keep it from springing out of the plug in step

3. Use the setup key to turn the plug slightly in either direction and remove the shim.

4. Push the plug out gently with a plug follower.

5. While the setup key is still in the plug, discard the old pins. If you are certain that the cylinder was not master keyed when you started, skip to step 7.

Penetration Party



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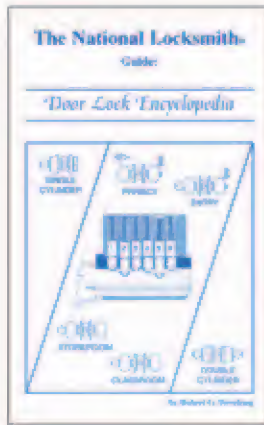
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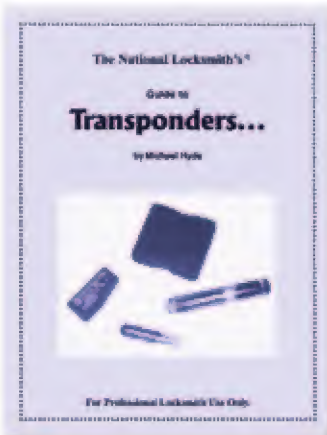


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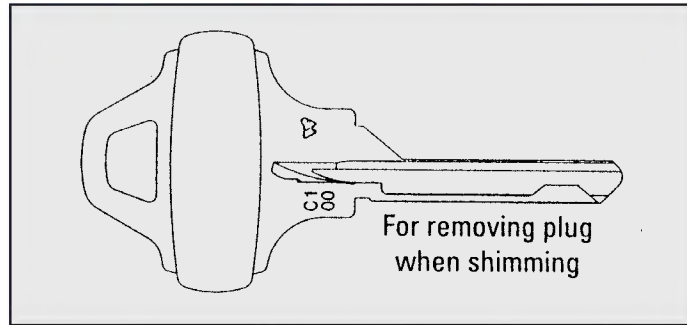
Transponders



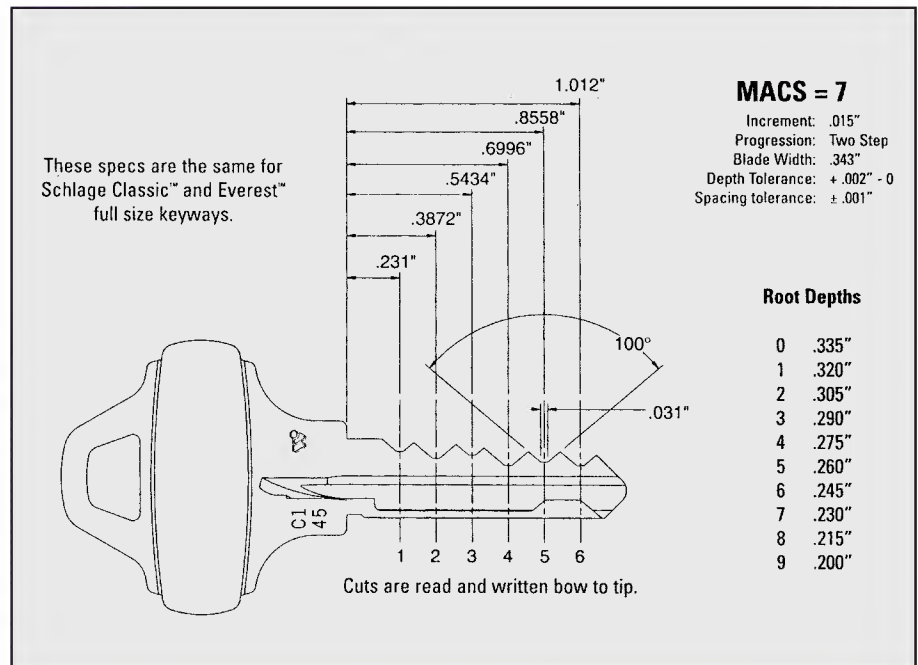
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#TS - 2001



7. When shimming, use a pick or key blank.



8. The key biting specifications.

6. Clear the cylinder shell of any remaining master pins. This is extremely important. If master pins remain in the shell, you may experience the following problems:

- The key cannot be inserted or removed.
- One or more springs will get crushed and cause a future lockout.
- Additional keys will operate the cylinder.

7. Slowly back the follower out of the shell. Load the correct size top pin in each chamber, based on the plug total (bottom pin + any master pins). A plug follower with a groove will help you guide each spring and top pin into its chamber as you push the follower in from the back of the shell. Special tools to make this process easier are available from a variety of locksmith supply companies.

8. If you are master keying, leave the setup key in the plug. Otherwise,

hold the check pin in position with your finger or thumb while you remove the setup key and insert the new operating key.

9. Install the new pins in the plug.

10. Orient the plug so it is turned slightly with respect to the shell. Gently push the plug into the shell, pushing the follower out.

11. Test all keys for smooth operation. Reinstall the cam, tailpiece, etc. and you're finished.

In *illustration 8*, is the key biting specifications for the Everest.

Schlage also makes the removable IC core in the Everest Triad keyway. For more information contact Schlage Lock Company at:

Commercial Customer Service
2401 Bayshore Boulevard
San Francisco, CA 94134
(800) 847-1864
Fax (800) 452-0663

Circle number 320 on Rapid Reply.

TNL

The LIGHTER Side

Fly Away



by
**Sara
Probasco**

A few weeks ago, as I was sitting at my desk poring over the daily accounting report, a soft knocking caused me to look up from my work. Through the leaded glass door that separates my office from the front sales area of our store I saw a small, elderly man peering back at me. He had a pleasant smile on his face, and in his hand he held a copy of my book, *Service With a Smile*.

"Come in," I said, and I motioned for him to enter.

Tentatively, he opened the door and leaned forward.

"I hope I'm not disturbing you," he said. "I bought a copy of your book a while back, and I just wanted you to know how much I have enjoyed reading your stories about locksmithing."

"Well, thank you," I replied. I pointed to the book clutched in his hand. "Would you like for me to personalize it for you?" He looked puzzled. "I'd be happy to autograph your book."

"Oh, yes. Sure. Would you?" As he handed it to me, a little soft giggle escaped his smiling lips and his eyes danced with delight at the prospect.

I asked his name and proceeded to write a little personal note on the inside front cover.

"I'm a locksmith, too," he volunteered as he watched. "I live over in Brackettville (a small town about forty-five miles away). I got interested in locks when I was just a little tyke about six years old. Back then, money was hard to come by, and a dollar meant something. I would work for my Dad, doing chores around the place, and he would pay me a quarter a week. I remember, I had saved up seventy-five cents.

"The next time I went into town to the hardware store with him I bought a big padlock. I'd had my eye on it for a while - what for I'll never know; I really didn't have any use for it. But it fascinated me, the way you could snap it shut and then open it again with the

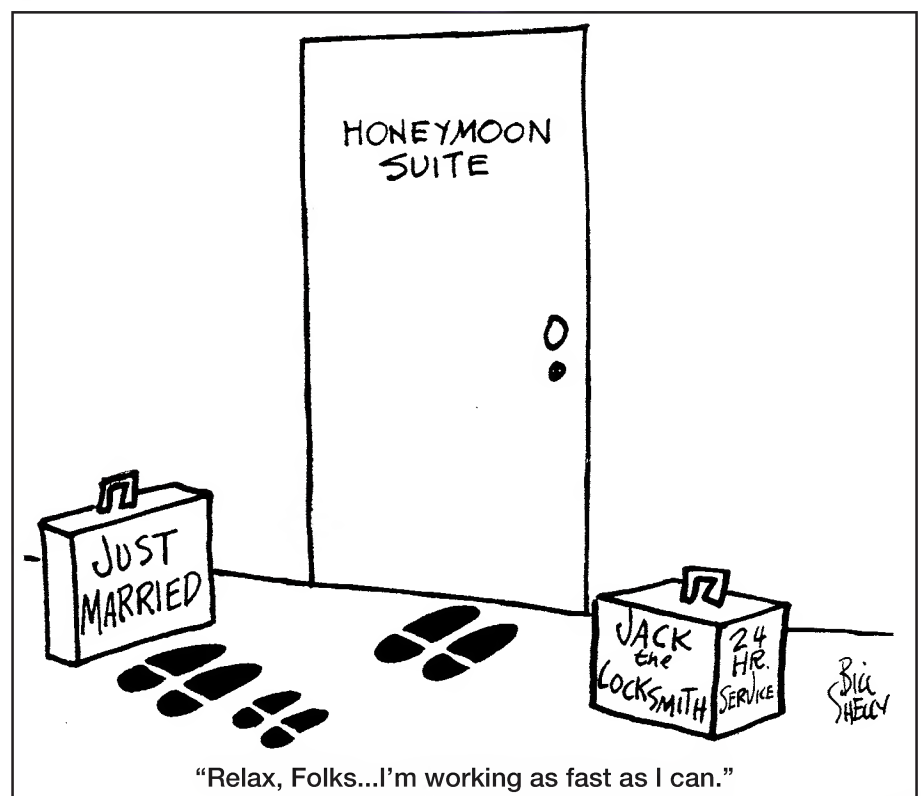
turning of the key. I must have locked and unlocked it a hundred times that first day.

"Pretty soon, I got to wondering how I'd get it open if I lost my key. That's when I started trying to pick it open. It didn't take me long to figure that out, and I guess that was the beginning of my interest in locksmithing. People didn't lock up things much, back then. Not like they do now. But every now and again somebody'd get something locked and couldn't find the key. That's when somebody'd tell them, 'Go find Jonathan's boy. He can get it open,' and they'd come looking for me." His smile was evidence of the pleasure that had brought him, even then.

"That was nearly eighty years ago," he admitted wistfully, "I'm still getting things open for people - 'course I graduated to doors and then safes and, later, automobiles, but it's all pretty much the same principle. You just have to understand locks."

In the two hours he and I visited that day, the man told me much about his life. Although he loved locksmithing and had practiced it for many years, he had never charged anyone for his services. For his livelihood, he had worked for the U.S. Immigration and Naturalization Services, manning a checkpoint on the U.S./Mexico border at Eagle Pass, Texas, most of his adult life.

"There was one old man who crossed that half-mile bridge across the Rio Grande on foot, at least once a week. I got to where I spoke good Spanish after a while, and I'd chat with some of the regulars when they came across. This old fellow had three different wives during the time I knew him. He outlived them all. He got to be ninety-six years old, had to use a cane by then, and still he would walk across that long bridge every week. In all the years I'd seen him and talked to him,



he'd never spoken a word of English. I had figured he didn't know any. Then, the last day I saw him, as he walked slowly away from my check-point, starting back across the bridge into Mexico, he waved and called back over his shoulder, 'See ya' later, 'gater.'"

His eyes clouded a bit, remembering, then they brightened again. "You know, Customs won't let you bring migratory birds across the border. Tourists buy those colorful parrots in Mexico thinking they'll take them back home for pets, and Customs confiscates them and sells them back to the natives, cheap. It seems like kind of a racket, but the law says the birds can't be taken across the border, period, so what else can they do with them?"

Well, there was this guy who was moving to the States. It was all legal, and all. Thing was, in a cage in the back of his truck he had a bright red cardinal and a parrot.

"You can't take the birds across the border into the U.S.," I told him. "It's against the law."

"But these are my pets," the man protested. "I've had them for years."

"Sorry. The law is clear. No birds." To verify my position on this, I called in my superior, who said exactly the same thing: no birds can be taken across the border.

"The man was unsure what to do. His pets were dear to him, and he didn't want to turn them over to the border authorities to be sold to just anybody, but he had come from deep in Mexico and had no family or friends in the border town to take the birds. Finally, the man asked, 'What if I just turn them loose?'"

"I shrugged. 'Sure. I don't see why not.' Nothing in the law opposed such a choice, so my superior did not object, either, and went back to his work in another room.

"There was only one problem: the cage was locked, and even after rummaging around through the boxes in his truck, the man could not find the key. 'Never mind,' I told him, and in a couple of minutes I had the door picked open for him.

"The man opened the cage, and the cardinal promptly flew out and kept going, but the parrot didn't move. The man tried to coax his pet out of the cage, but had no luck.

When he tried reaching in to take him out, the large bird squawked loudly, emitted a stream of Spanish curses, and tried to bite him. Finally, he and I took hold of the cage and shook the bird loose from his perch and out the cage door. The parrot flew around and around, squawking angrily, then came to rest on his owner's shoulder. No matter what the man did to dislodge him, the parrot would not fly away, but would return to the man's shoulder.

"Finally, the man turned to me in desperation. 'What am I to do?' he asked.

"I glanced about to see that we were alone. Then I said with a wink, 'If I were you, I'd be on my way.'

Grateful, the man did just that.

"As the man drove away, my superior came charging out of his office. 'Stop that man!' he shouted. 'He can't carry that bird across the border!'"

"'Oh, he's not carrying him across,' I said. 'He released him, just as you said he could. The parrot is going along for the ride, of his own free will.'" **TNL**

Modern Safe Opening



This book is a step-by-step How-To course in safe penetration. Opening safes is one of the most profitable aspects of the locksmithing business.

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#MSO - 1

A Tale of Two Gardalls



by
Dale W. Libby, CMS

Just because a particular safe resembles another safe on the outside or carries the same name, does not mean that the safes are similar on the inside. Such is the case with the two Gardall manufactured safes we will cover this month. The locks are identical (Sargent and Greenleaf 6700), and as with all Gardall safes I have worked on, the combination lock is mounted Vertical Down (VD).

The first Gardall safe is a dual B/F rated unit. The B/F rating indicates Burglary and Fire protection. The first thing you will notice is the "Gardall" name emblazoned across the top of the first safe door. (See photograph 1.) The

dial is on the centerline of the door with the handle to the left. The handle is a flat pressed handle that rotates from the 6:00 o'clock position (clockwise) to the 8:00 o'clock open position.

At first glance you might think that the lock on this unit is mounted Horizontal Left (HL). By careful observations we can see that is not the case for two reasons. First, the handle on this unit is too close to the dial and dial ring. Secondly, the centerline of the handle is below the centerline of

the dial. With this configuration, we should suspect that the lock is mounted Vertical Down (VD) or Vertical Up (VU).

As I stated before, the Gardalls I have worked on have had the combination locks mounted Vertical Down. Taking off the back cover of the safe door we see that the lock is indeed mounted VD. (See Photograph 2.) The opening handle is located at the tip of the new S&G back cover that holds the relocking device in place.

This new cover is quite interesting. On the top left of the cover is the factory label that covers the change key hole. The label has the customary warning that "only factory authorized personnel should service the lock". The other part of the cover is a 'wing' that is adapted for several relocking devices located outside of the combination lock body.

This wing has a slot for the Gardall plunger, as well as holes and a slot for other types of relockers. Ones that incorporate roll pins or compression pins to hold the relocker in the open position when the cover is attached to the lock. I will show you a close up of this relocker later on in the article on the other Gardall safe.

This safe has three bolts (hard to see) that are attached to the moving plate attached to the blocker bar. The movement is direct and not reciprocal. When the handle is moved right (clockwise from the outside of the safe) the bolts move left. I call this a direct drive bolt movement, as opposed to the indirect drive of the second safe as we will soon see.

1. Small Gardall safe, handle close to dial.



2. Inside bolt work of the small unit. Note relock cover on S&G lock.



3. Lock and bolts in open position. Bolt bar moves as bolts do.



4. Large Liberty safe. Note handle is farther from dial and below dial center.



Photograph 3, shows the inside of the first safe door in the open position. You can see how the movable bolt bar moves under the combination lock when the bolt is up. Also evident is the hole in the bolt bar for the relock pin to fit. Clean and simple arrangement of bolts, lock, and relocker.

The second safe is the one I was contacted to work on. It had Gardall across the top with the Bulldog Logo as well, but instead of having the Bulldog on the dial as the first one did, it had the name Liberty Safe in the center of the dial. The identical handle was used on this unit which is also slightly below the centerline of

the dial. This meant to me that the lock was probably also mounted Vertical Down.

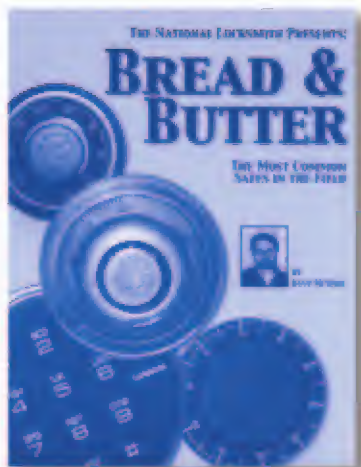
The call on this unit was that they could not get the safe open. I assumed that the reason for the problem was that they were having trouble with the combination lock. I was wrong.

I tried the combination and the dial stopped correctly at 94 on the dial. I tried the handle and it turned freely from 6:00 o'clock to the 8:00 o'clock position. (*See photograph 4.*)

The door would not budge. Just for fun, I spun the dial slowly to clear off the combination and tried the handle again. To my surprise, it again turned freely from 6:00 o'clock to the 8:00 o'clock position. Doing the combination had no effect on the handle movement. It was a disconnect of some sort.

By moving the handle back and forth, I could feel that there was movement of bolts. This unit was much larger, so it could have had three to five bolts. I knew that one of the bolts had become disconnected from the bolt bar, most likely the center bolt. I also knew that this safe must have a different bolt control for a lockout like this to occur. I was right.

After opening the safe and repairing the unit, the bolt control looked precisely as you can see in *photograph 5*. With this bolt arrangement, when the outside handle is moved from 6:00 to 8:00 o'clock, the main bolt bar goes



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#BB - 01

toward the opening side of the door. In the first safe, the handle caused the bolt bar to move in the same direction as the bolts. Here, a reciprocating movement of the bolt bar, and a square block of steel

caused a pivoting movement. When the bolt-carrying bar moved out, the bolts moved in.

The bolt shown on the bar that attached to the square pivot plate was

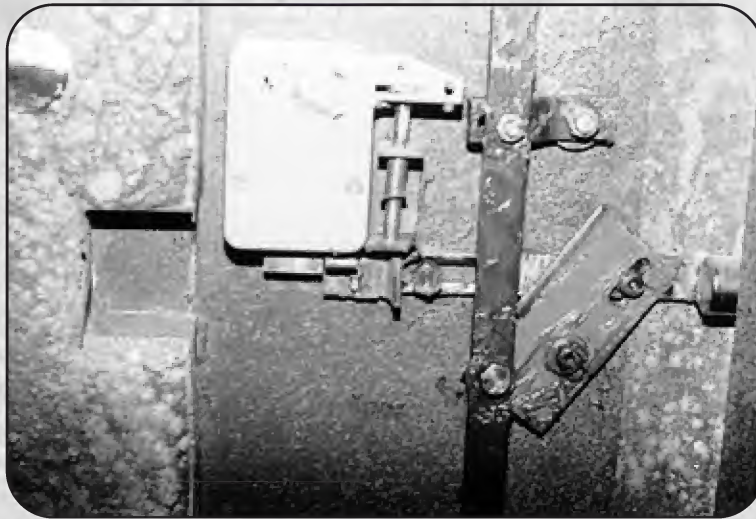
missing, allowing the handle to move even when the unit was locked. The top and bottom bolts were withdrawing properly, but the center bolt was not able to move because it was not attached to anything.

Photograph 6, shows the unit working properly. Note the similar position of the square pivot bars for the center and top bolt. Both are in the vertical or open position and both bolts are withdrawn.

Photograph 7, shows the safe with the center bolt not attached. The top bolt can be seen in the open position while the center bolt is still locked. This is the configuration that I worked on and got open. There are three (maybe more) possible avenues of attack to get this unit open.

First, one could move the safe out from the wall and drill into the opening side of the unit, searching for the center bolt. The 1-inch body bolt

5. Bolt arrangement on Liberty Safe. Bolt bar and bolts move in different directions.

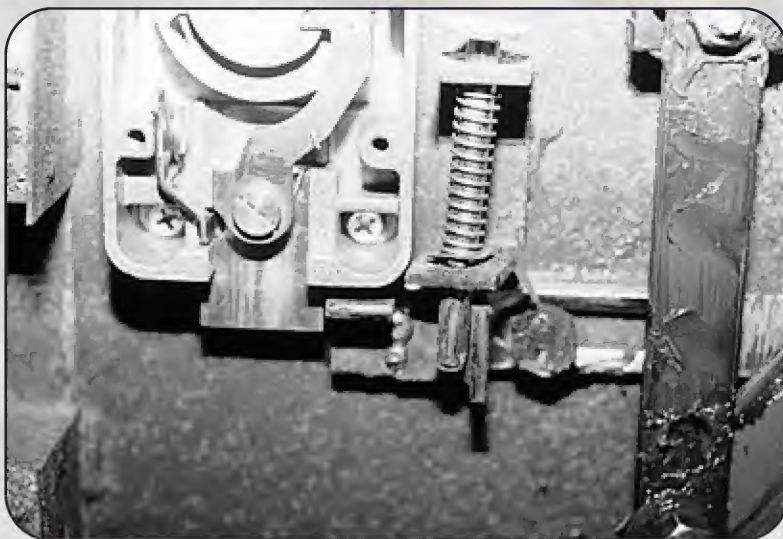


6. Properly functioning arrangement. Both rectangular pivot bars are vertical pulling the bolts into the safe door (top and middle bolts).



7. Center pivot unbolted. Top bolt is withdrawn while center bolt is still locked. Note positions of rectangular pivots.

8.
Relocking
trigger
inside
lock, and
external
relock
device is
shown.



is located in line with the combination lock bolt. Drill in at the side of the unit about 2" with a small drill and search for the end of the bolt. After dialing the combination and throwing the handle to unlock the top and bottom bolt, fish around until you find the end of the bolt and press it into the safe door.

I am not sure of the measurements of how far back to drill, just of the placement of the bolt in this unit. This

is too messy for me, but might be used as a last resort.

Secondly, one could take the safe away from its tight fitting cubbyhole and tip it on its hinge side and beat the door with a dead blow hammer. With the combination on the lock dialed and the handle turned to the open 8:00 o'clock position, the bolt would eventually fall into the door and the safe would open.

The third method and the one that I used, really works well and does not require one to be a safe mover of any kind. It is hard to move, tip, and stand up safes, so I only suggest that method if you are a gorilla and have a good back. I do not.

The method I used I call the Rock and Roll method of gently nudging the bolt bar back into the door.

With the combination open to the stop position, and the bolt handle thrown, I inserted a mini-flattened Chrysler torsion bar at the bottom of the door and shook it up and down while pulling out on the door handle. I was trying to get movement of the door in as many directions I could. To see if I was making any progress, I tried to move the dial out of the drop in area of the combination lock. To my happiness and surprise, I could not move the dial more than a few numbers. This was a good sign.

What this means is that part of the unattached bolt had moved under the open combination lock bolt, blocking its downward movement. This will keep the dial from moving no more than a few numbers. This means that

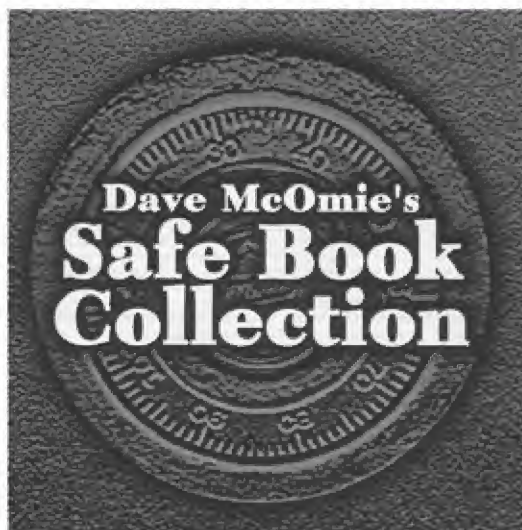
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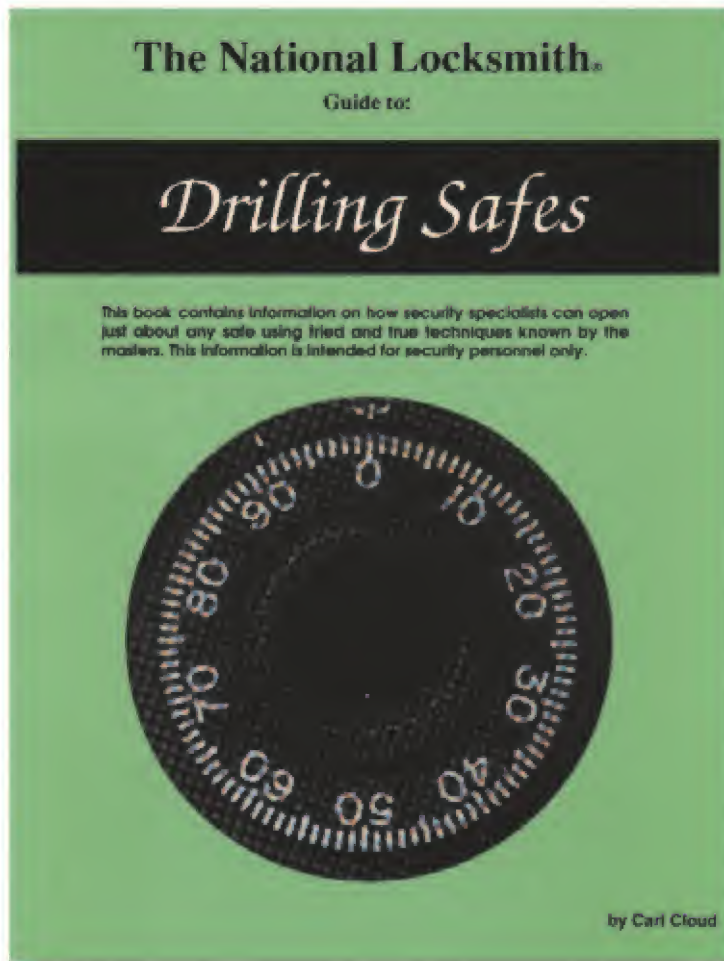
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#DMCD - 1

Drilling Safes



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#DS - 1

the bolt bar was moving in the correct direction. Total time to open the safe was about five minutes. No drilling or moving the safe was required. Repair, however was required.

The procedure needed to repair the unit consisted of replacing the bolt in the bolt bar, which had fallen to the bottom of the safe door. I then checked the tightness of the other bolts, and found that most of them were loose. I also tightened up the Allen head cap screws that held the pivots to the door. Once this was done, the bolt work moved freely and smoothly when the door was open.

I also worked through the combination lock, removed and cleaned the mechanism and tightened the dial ring screws. This is standard procedure on safes I have never worked on before. The unit was only two months old (from the dealer) but it really needed cleaning and tightening and adjusting.

As soon as I shut the door, the bolts worked hard, and it was a problem to throw the bolts fully. There is a "slop" set screw in the door. It is a flat headed slotted screw, which goes into the center bolt hole and impacts the center bolt only. Once I loosened it a couple of turns, the bolts worked great.

Just for fun, I turned out the screw a couple more turns to see how much tolerance (slop) there was in the door. With the screw turned out, there was about a 3/8" in and out slop in the door. This is not acceptable. The inner bolt receptacle holes are way larger than the bolts themselves. This gives massive tolerance for manufacturing the door. The setscrew was to take the slop out of the doors as well as providing a definitive adjustment for tightness.

Before drilling any safe, think about the problem logically, and see if you can come up with a less destructive means of attack. The relocker arrangement is shown in *photograph 8*. It is located to the left of the lock (as viewed from the outside of the door) and can be compromised by drilling next to the edge of the lock at the lock bolt height. You can drill to break the spring, cut the bolt, or drill 2-1/2" down from dial center to raise the device up.

Good luck, open and prosper! **TNL**



In the 1960's and 70's, the Volkswagen Beetle took the nation by storm. It was seen in every driveway, parking lot and highway across America. This vehicle proved to be a low cost, durable and fun means of transport that has survived the test of time. Luckily, my father worked for Volkswagen of America at the time, and my frequent visits to the plant provided me with a first hand peek at the research and development teams that contributed to the bugs performance. They all wore long white lab coats in a pristine shop with new tools all in order. They would gather around their projects like a human shield protecting a president. Upon the hydraulic lifts sat every imaginable model waiting to be dissected and reborn. You couldn't help but view the operation with awe and wonder.

At the same time I recall finding the publication called "Idiots Guide to Volkswagens" in a local book store. Funny thing was that there too, in the isle of this book store was a group of teenagers huddled together just like the R&D team. However, they were all flipping through the simplified pages of instructions that this manual presented for the common person to follow and understand. Needless to say this book flew off the shelves and quickly became a popular reference. Its contents appeared to be handwritten as if in a marbled school tablet, lines and all. With stick figures doodled among the instructions to serve as a reminder of the simplicity and ease of VW servicing.

This same concept of simplicity appears in a product by Visonic Ltd., called "Prox in a Box". Prox in a Box is an access control system that is easy to install and program. It does not require a PC for programming. One control unit can operate up to 4 doors and may be shared by 3000 users. For larger installations, units can be networked or "daisy chained" with three additional units to provide control up to 16 doors.

Prox in a Box utilizes Proximity readers to enable easy access without the need for passwords or codes. It will record and log every action. For example, when a cardholder presents an access card to the reader, it is logged with time, date and door used. This information can be exported to a printer or a PC, using the RS232 serial output provided. It uses a standard battery backup in the event of a power loss.

The Prox in a Box PIAB-KIT is supplied with the following components: *(See photograph 1.)*

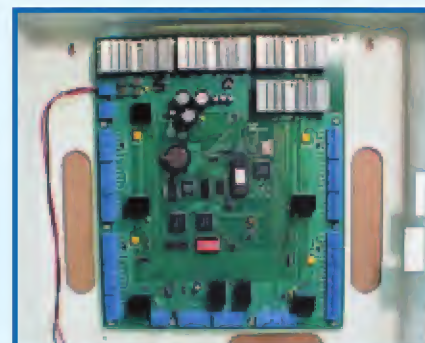
- PIAB Control Unit installed in a metal cabinet
- TRM - 1 Programming terminal
- RDR - 2 Proximity Readers
- Transformer 16.5 vac, 50va
- CRD - 25 pack of Access Cards
- Programming Guides
- Screwdriver

CONTROL UNIT:

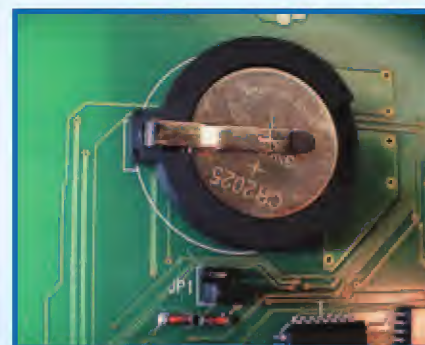
The PIAB control unit houses the circuit board containing the connections to the proximity readers, programming terminals, and external relays. *(See photograph 2.)* The control unit has a memory capacity of 3000 users, and 1000 events per controller. The controller has a real



1. The Prox in a Box PIAB-KIT.



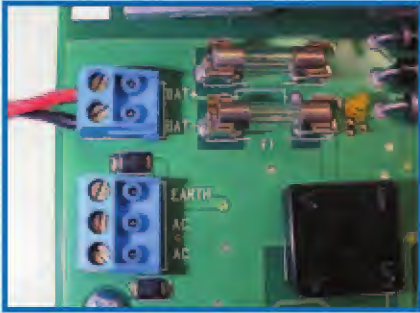
2. The PIAB control unit houses the circuit board.



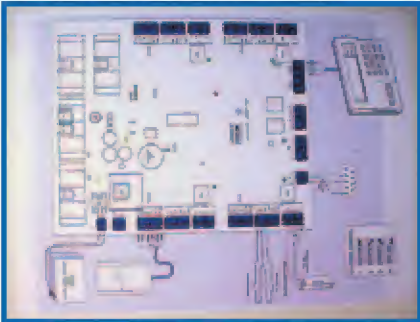
3. The controller has a real time clock and 3V lithium battery.

time clock with a CR2025 3V lithium battery to keep time and internal memory, even during a power outage. (See photograph 3.) It also is equipped with two low voltage 3A fuses that protect the control unit in case of a power surge. (See photograph 4.)

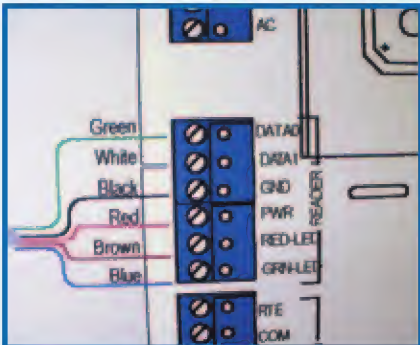
The metal cabinet housing is rather large, but certainly makes it easy to



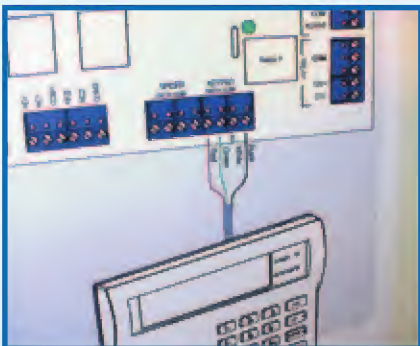
4. Two low voltage 3A fuses.



5. The simplified color schematic.



6. Color according to the proper wire use.



7. Pictures of the hardware and connection points.

work within. The best part of this container is the simplified color schematic that is adhered to the door. (See photograph 5.) This "idiots" version of wire termination will allow anyone to install and properly terminate the connections with confidence. Aside from the fact that the manufacturer shows you exactly where the leads will go, they are also in color according to the proper wire use. (See photograph 6.)

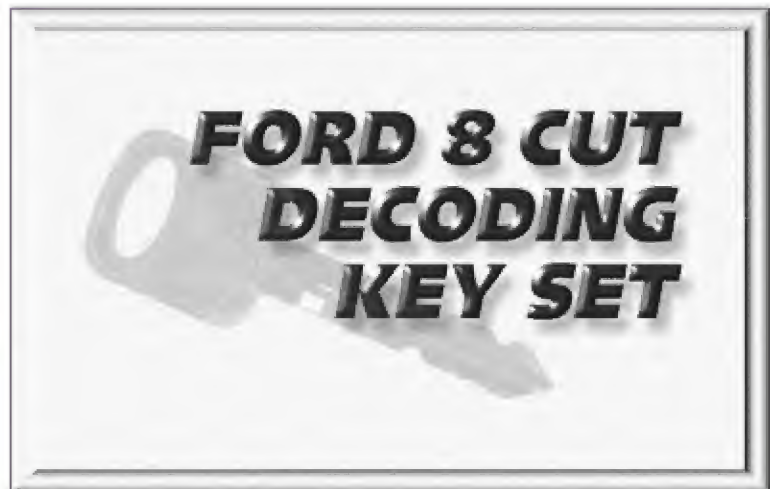
To make things even more understood, you are provided pictures of the hardware, program terminal, prox reader, transformer and

connection points. (See photograph 7.) Unfortunately there is no stick figures, but who could complain after such helpful considerations were given.

As mentioned, these control units can control up to 4 doors. The terminals in the container are grouped together according to each door. Each set of terminals are independent of the others which provides a fast, clean and easily understood wire nest, eliminating shared terminals. (See photograph 8.)

Each of these terminal blocks are removable to provide a more relaxing tie in. (See photograph 9.) There are

Ford 8 Cut Decoding Key Set

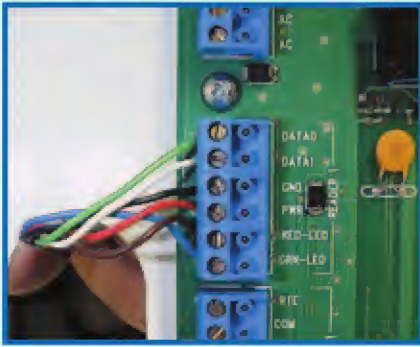


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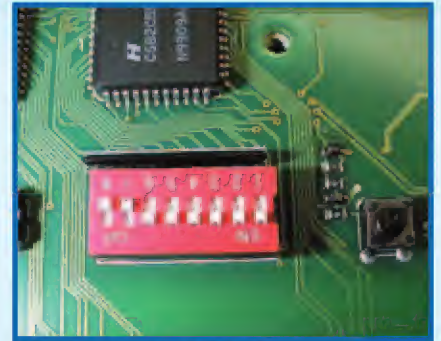
#FD - 8



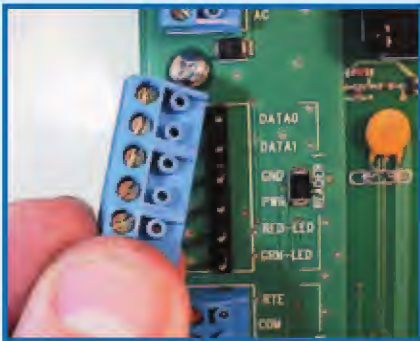
8. The terminals in the container are grouped together according to each door.



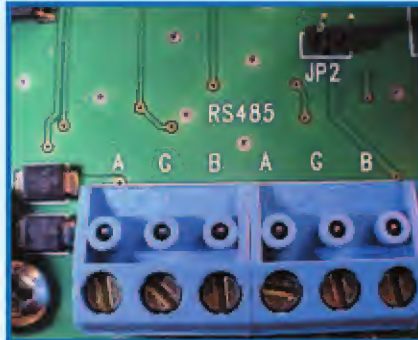
10. Terminal blocks for a RS232 connection.



12. A dip switch block.



9. These terminal blocks are removable.



11. Terminal blocks for a RS485 connection.



13. The RDR-2 proximity readers.

also terminal blocks for either a RS232 (see *photograph 10*) or RS485 connection (See *photograph 11*). The RS232 connection is used when operating with a single unit. The RS485 is used with more than one controller. The data is automatically updated from controller #1 to the others units via the RS485. The maximum distance between endpoint controllers is 4000 feet.

In *photograph 12*, you will see a dip switch block. These “dip” switches are used to identify the control unit address. In other words, they are positioned in a specific “on off” pattern depending upon the number of doors being used. The 6 leftmost switches are not used in doing this. The only ones you will need to be concerned with in this step, are the #7 & #8 switches. If you discover that this dip switch block was installed upside-down, don’t get confused, just identify the #7 & #8 switches and position as instructed. Next to the “dip switch” block you will see a small “Password Reset” button labeled RS2.

RDR-2 PROXIMITY READER:

The PIAB-Kit is equipped with the RDR-2 proximity readers that should be installed at the desired access points. (See *photograph 13*.) Additional readers can be purchased

separately. Proximity access cards are used as “keys” to open these doors. When in the presence of an RDR-2, the access card emits a coded RF signal that is read by the proximity reader. The proximity reader then forwards the signal to the PIAB controller. The control unit verifies that the card is valid and makes the decision as to whether it should energize an output relay that releases the lock. All activities involving the proximity readers is recorded and logged. This reader is a Weigant format that uses a tri color LED of green, red and amber indicator. It is 4-1/2” x 2-3/4” x 5/8” in dimension and utilizes a six conductor cable.

CRD-1 ACCESS CARD:

The controller is programmed to open specific doors at specific times and on specified days, when a valid CRD-1 access card or “key” is presented. Up to 3000 access cards can be stored in memory. In the event of a lost or stolen card, the access cards data can be easily deleted using the TRM-1 programming terminal. These access cards come in a pack of 25, supplied in the PIAB-Kit.

TRM-1 PROGRAMMING TERMINAL:

The TRM-1 terminal enables you

to set up the PIAB controller by programming the access cards, locks and other parameters of the system. All programming is done at the TRM-1 keypad. This terminal is a familiar alarm style keypad with a backbit 2 line LCD display. (See *photograph 14*.) On the lid that covers the buttons you will find a programming menu, or “cheat sheet” that will guide you through the different programming options. (See *photograph 15*.)

You can scroll through menu options by simply pressing the “up or down” buttons or by entering the corresponding number on the keypad of the programming terminal. The LCD display indicates the current status of the controller. In normal mode, the current date and time are displayed, and open locks are shown. In programming mode, menu options and fields are displayed.

INSTALLATION:

The Visonic Prox in a Box is a short stepped, straightforward installation requiring very little experience and time. The total steps involved on a simple one to two door install is about six steps.

- Step #1 - Mount Controller
- Step #2 - Install Locking device
- Step #3 - Install Proximity Reader

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#GM - 2



14. Alarm style keypad with a backbit 2 line LCD display.

Step #4 - Install Programming terminal

Step #5 - Power up

Step #6 - Program

That's it! Of course you need to run the wires into the controller and tie in to the terminal blocks, but the whole process has been made to be "idiot" proof. The overall speed and simplicity of this system is a response to the concerns of many who have found entry into the access control field confusing and intimidating. With all the assertive aids such as the pictograms and colored wire diagrams, along with a spacious control panel; it would be difficult to make an error installing this product.

Typically, the PIAB Control unit is installed near the door(s) that is to be controlled. The cabinet should be located near a power source. Keep in mind that the TRM-1 Programming Terminal should be located within a reasonable distance of Reader #1. This is due to the need of having to present the proximity card during the program mode. Unfortunately, this can be problematic if dealing with an extended installation where you are unable to have the reader in a reasonable range from the TRM-1.

This scenario is possible for several reasons. You may not want the controller accessible to the general public. You may also have additional doors many feet away from the TRM-1 and not have enough time to return during program time before it defaults. It is possible to mount the TRM-1 within the Control Cabinet or close to it, while using a spare reader also mounted or wired into the controller locally just for programming purposes, so that you can do it all at the control unit cabinet.

CONCLUSION:

The Visonic Prox in a Box system can provide a springboard for those who wish to enter into the field of access control as well as provide a fast money



15. On the lid you will find a programming "cheat sheet."

maker for the seasoned veteran. It has addressed many installation issues that technically could eliminate the need for installation experience. It allows you to quickly respond to a customer's needs by having a complete access system ready to go at a moment's notice. It all comes in a single, convenient box! The time it took to wire up this panel was minimal. I may be wrong, but for years I have heard many locksmiths saying that they just want to know "what wire goes where" without having to have a Ph.D. in technical reading. Visonic has appeared to remove much of the technical brainfood that is so often provided in other systems.

By doing this they open up the market to many who may have shied away. This does not mean that it is a perfect system. Improvements to the design of the TRM-1 to accommodate a port to accept a programming reader may relieve the need to run back and forth from the reader to the program terminal, or possibly having a reader within the actual TRM-1. This system is a "non volatile" one, in which it will not lose its system memory if the unit loses power. The proximity reader supplied is too large for use on narrow frames, so the option of the RDM-2 is available. All in all, I have found this "packaged" system to be a compliment to providing bundled services to the end user.

Similar to the Volkswagen Beetle and the popular service manual with stick figures, this is a thought out system based upon the "idiots" perception of the installation, service and programming. So for those of you who want to learn more, and get more experience in access control and proximity technology, this is a good way to start.

For more information on the Prox in a Box contact Visonic at (860) 243-0833 or circle 307 on Rapid Reply. **TLN**



The 2000 Cadillac DeVille



by Randy Mize

In keeping up with the transponder transformation, Cadillac introduced the 2000 DeVille with GM's Component Set Strategy (CSS) column and the PASS-Key III or PK III transponder system. (See photograph 1.) Although similar to the CSS column and PK III systems introduced on the 1997 Buick Park Avenue, there are some small differences that are noteworthy.

Like the Park Avenue, Huf manufactures all the locks and keys. Unfortunately, with few exceptions, this means that locks and lock components are dealer-only items. Unlike the Park Avenue, the DeVille uses the much larger GM Corporate Head key design in both its master key (see photograph 2) and valet key (see photograph 3). To accommodate the larger bow of these keys, a larger knob is attached to the front of the CSS ignition lock cylinder.

Despite these small differences, in an emergency, the smaller key of the Park Avenue can be used and programmed into the DeVille. Also, should the cylinder need to be replaced, both the STRATTEC #704602 and BWD Automotive LC1354 can be used in a pinch; although the smaller size of these cylinders may have the same neat appearance as the original. (See photograph 4.)

Opening

Fortunately, the GM engineers did not pursue entrance security with the same fervor they approached the transponder security. Using a simple slide locking tool, this vehicle can be quickly opened.

Insert a hook tool into the door approximately 6" in from the door's edge and 6" to 8" down into the door. (See photograph 5.) Reach under the glass to make contact with the door lock button linkage. (See photograph 6.) Grasp the linkage and lift. (See photograph 7.)

Key Generation

If possible, retrieve a key code from GM Roadside Assistance. If this method is not feasible, you can use an H.E. Mitchell EZ-Reader, Determinator, or the SKT Wafer Reader to read a door or trunk lock to get a partial key. Although only a maximum of six of the 10 cuts can be obtained in this method, many key code programs have utilities that allow you to find all possible remaining combinations for finishing the key.



shroud. (See photograph 11.)

Raise the shroud and turn the cylinder to the START position. If you do not have a key, pick the lock or drill the lock to turn the cylinder to the START position. Then locate and depress the lock cylinder retainer at about the 12:00 position. (See photograph 12.)

CAUTION: Before turning the lock cylinder, note the following two warnings.

1. If picking or drilling the sidebar to turn this lock, the buzzer plunger must be raised to prevent damaging the buzzer switch (approximately \$150.00).
2. Disconnect the battery before turning the lock to the

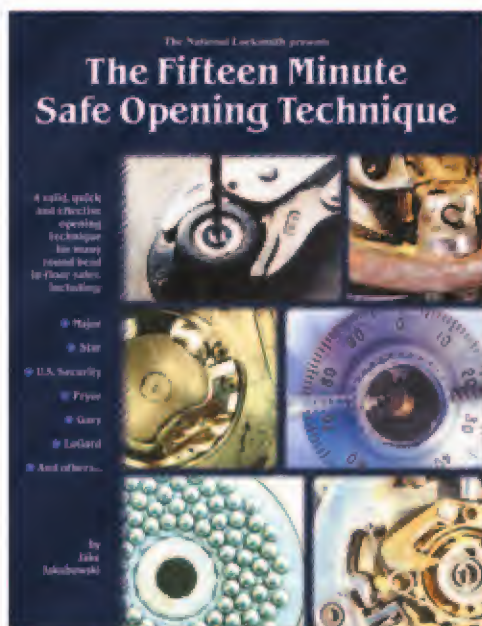
Ignition Removal

Although some of the parts are now made of plastic and formed a little differently, removing this lock is identical to all other CSS column lock removals.

The first step is to remove the tilt lever arm. Firmly grasp the arm and pull firmly to accomplish this. (See photograph 8.)

Next, use a T15 Torx to remove the lower shroud screws and remove the shroud. (See photograph 9.) Take great care when separating the top shroud from the bottom, as there are several tabs that connect these two pieces. (See photograph 10.)

With the lower shroud removed, use an E5 inverted Torx socket to remove the two bolts that anchor the upper

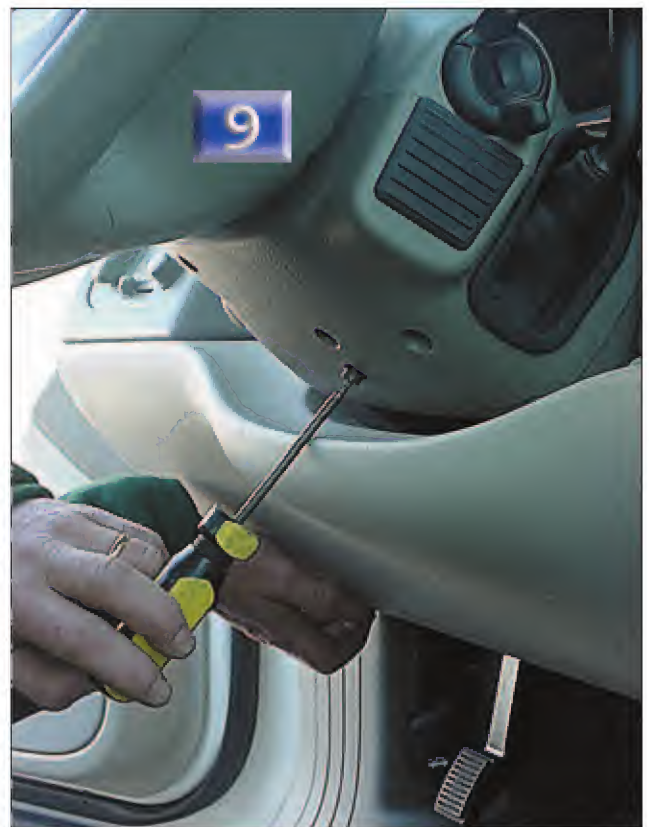


15 Minute Safe Opening

This book deals exclusively with round head lift out doors. Shows five ways to open a Major; three ways to find the Dog Pin on a Major; four ways to open a Star; four ways to open a LaGard style round head.

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START position. As an alternative, after setting the parking brake and chocking the wheels, the shift lever can be moved into the neutral or drive position, activating the neutral safety switch feature.

(For more in-depth information on the dangers and warnings of this column, visit Saber Tool Company's web site at www.sabertool.com; or order The National Locksmith's Guide to Steering Column Service.)

With the lock cylinder removed, the upper shroud reveals an all-plastic lock housing, and the PASS-Key III Theft Deterrent Module or TDM. (See photograph 13.)



To remove the door panel, first remove the door lock button. (See *photograph 16.*) This is accomplished by first releasing the small locking tab that holds the lock button to the lock rod. (See *photograph 17.*)

Next, gently lift the window/lock button control panel from the armrest area. Disconnect the wire harness from the panel, and set it safely aside. (See *photograph 18.*)

Now, remove the plastic trim panel behind the latch handle. (See *photograph 19.*) Removing this panel reveals a small Phillips head screw. Remove the screw. (See *photograph 20.*)

With all of these fasteners and panels removed, use a trim tool and gently pry the clips loose that hold the panel to the door. DO NOT TRY TO COMPLETELY PRY THE PANEL AWAY FROM THE DOOR! Two clips and the door handle are fastened in such a manner that pulling will cause permanent and costly damage.

Door Lock Removal

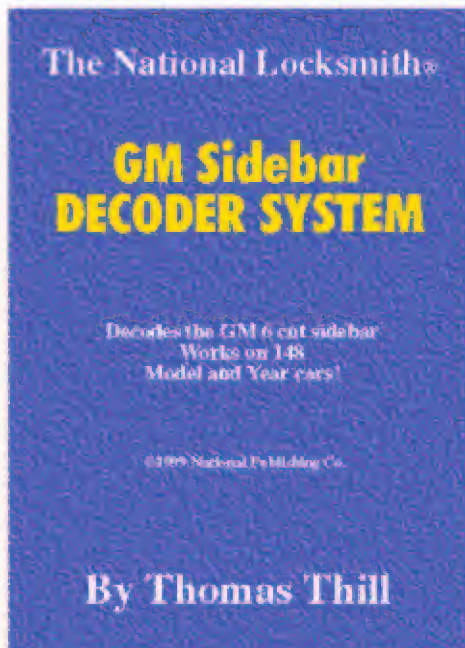
The door lock on this vehicle is part of the handle. (See *photograph 14.*) While seemingly complicated, it is actually accessed quite easily once the door panel is removed. (See *photograph 15.*)

132 • Visit www.TheNationalLocksmith.com



Once all the perimeter clips have been pried up and out, and the panel is fairly free to move, grasp the bottom of the panel and firmly lift up. This should release the panel from the door, allowing the electrical connectors to be disconnected. (See photograph 21.)

Once the panel is removed, you can view the two metal clips and the door handle that prevent the panel from being pulled straight off of the door. (See photograph 22.) Before the panel can be replaced, the two metal clips must be



GM Sidebar Lock Decoder System

Tom Thill, the author of a new book, has invented an amazing new way to make keys for six cut GM Sidebar Locks.

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#TT - 1



removed from the door panel and slid back onto their mounting posts. (See photograph 23.)

As the panel is being placed back on the door, a small arm on the inside latch handle (see photograph 24) must properly mate and seat within the plastic slide attachment of the latch rod mechanism (see photograph 25).

With the door panel removed, a heavy sound panel must then be removed. (See photograph 26.) This panel is held to the door with several clips. To remove the clips, simply use a tool to depress their centers (see photograph 27) and lift the clips from the panel (see photograph 28.) With the clips



removed, gently set the panel down, but be careful. This panel is still attached to various harnesses. (See photograph 29.)

The handle is now easily accessed. Use a socket and remove the two screws that hold the handle in place. Be careful not to damage the switches and wiring that is

connected to the lock. (See photograph 30.) With the handle out of the door, the lock can be removed from the handle. (See photograph 31.)

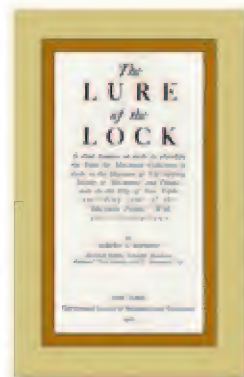
The Lure of the Lock

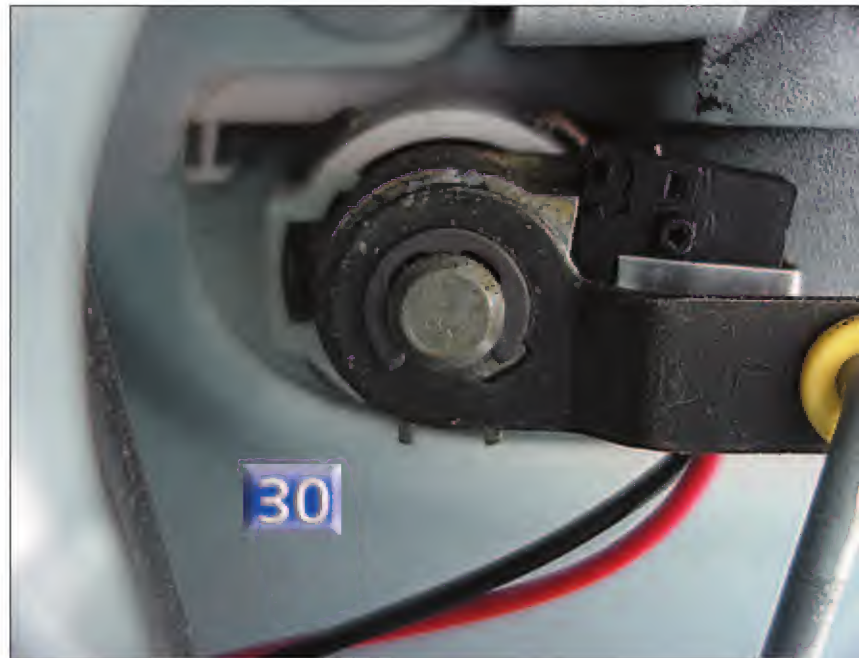
This hardcover book, compiled in 1928, features dozens and dozens of beautiful photographs on ancient through modern locks.



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#LURE







Trunk Lock Removal

The trunk lock is easily accessible via the electronic trunk release. Once open, it is necessary to first remove the license plate trim that covers the trunk lock. To remove the trim, lower the inside trunk panel cover. (See photograph 32.) Use a 10mm socket to remove all the screws that hold the trim piece to the trunk lid. (See photograph 33.) Remove the trim. (See photograph 34.)

A simple horseshoe clip is used to hold the lock to the trunk lid. (See photograph 35.) Before removing the clip, however, gently remove the electrical switch attached to the back of the lock. (See photograph 36.) Remove the clip and remove the lock. (See photograph 37.)

On-board programming procedures for GM's PKIII system

- Accepts a maximum of 10 keys.
- Requires Master key blank to do on-board programming. Valet key does not open programming mode.

Programming

Duplicating Key



Generate a New Key _____

1. Once key biting has been determined, cut biting onto an un-programmed Master key blank.
2. Insert key into ignition lock and turn to ON position. The SECURITY light will light solid.
3. Wait for security light to go out (about 10 minutes), turn key to OFF position.
4. Repeat steps 2 and 3 two more times (3 total cycles). After last cycle, the key is programmed.
5. After key is generated, use key duplicating procedure to duplicate up to 10 working keys.

Misc. Information _____

Lock & Key Manufacturer: Huf

Security: GM PASS-Key III

Key System: GM 10-Cut

Key Blank: Ilco B99-PT (Master), Jet B99-PT (Master)

NOTE: In an emergency, STRATTEC's 598936 or 599260, Ilco's B97-PT, or Jet's B97-PT key blank can be used.

Ignition: Dealer only. In an emergency, use STRATTEC 704602 or BWD LC1354.

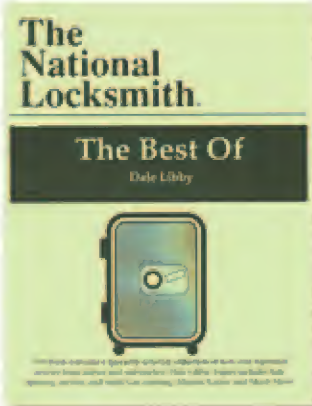
Door/Trunk: Dealer Only.

Service Kit: No known kit fits the original locks.

PKIII Programming: All keys can be programmed using GM's PKIII on board programming, or GM's Tech II scanner.

TNL

The Best of Dale Libby



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#DALE

Safe Opening Articles 1987

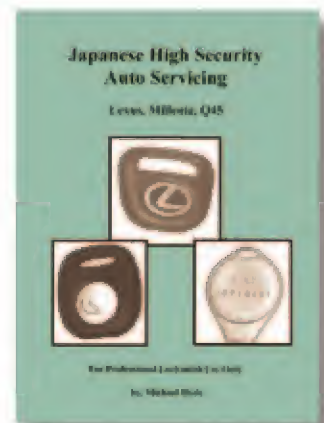


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#SA - 1

Japanese High Security



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#JAP - 1



THE CASH STATION

by Mark Daniel

Fujitsu

Manufacturer
Fujitsu ATM

Model #
7030AP

Safe Manufactured by
Armor Safe Corp., San Marcos, CA.

Safe Model #
150 (24 hour level 1 security)



Handle Type
L Handle

Handle Location
18-5/8 inches down from top of door. 6-3/8 inches from opening edge.

Handle Rotation
Clockwise to open.

Lock Handing
Vertical Up (VU).

Dial Center to Handle Center
3-1/2 inches down on center.

Dial Location
15-1/8 inches down from top of door. 6-3/8 inches from opening edge.

Number of Door Locking Bolts
One full-length bar.

Door Locking Bolt Locations
Opening edge only.



Fujitsu

Door Locking Bolt Diameter

1/2 inch

Door Thickness to Lock Case

7/8 inch

Door Thickness to Back of Lock

2 inches

Lock Type

LaGard

Lock Description

Three wheel, key-changeable lock with silent alarm feature. There is a micro-switch at the bottom of the lock.

Lock Notes

There is an additional gate on the first wheel. When you add 10 numbers to the first wheels combination, the lever will still drop-in. This activates the micro-switch and the alarm when the bolt is retracted.

Lock Case Thickness

1-1/8

Number of Wheels

3

Driver Location

Rear

Lock Handling

Vertical Up (VU)

Drop-In Location

72

Forbidden Zone

0-20

Lock Opening Procedures

4xL to first number (add ten numbers for silent alarm). 3xR to second number, 2xL to third number, 1xR until dial stops.

Lock Drill Point

7/8 inch from dial center at 72. Align wheel gates at lever fence.

Lock Relock Trigger Type

Wire Spring

Lock Relock Trigger Drill Point

7/8 inch left of dial center. 1-5/8 inches up. Hook with a wire and pull towards front of safe.

External Relock Device Type

Spring loaded plunger

External Relock Device Drill Point

8-1/4 inches from opening edge. 12-1/4 inches down from top of door.

There have never been accurate statistics kept on the number of injuries or occurrences of death from being trapped in a car trunk. However, there have been several. There are many ways that someone can become trapped with little or no escape: robbery, kidnapping, or just a child playing and accidentally becoming locked in. Vehicle trunk entrapment and ways to limit such occurrences will soon be at the forefront of concern thanks to Janette Fennell.

In 1995 a pair of armed men confronted Mrs. Janette Fennell and her husband Greg, in their garage. They forced the Fennell couple into the trunk of their car, while their 9-month old son was in the baby seat in the back of the car. As you can imagine, sheer panic set in.

had located the interior trunk release cable.

When they returned home, the baby was still in the garage unharmed.

The Fennell's were luckier than most that are robbed and stuffed into an automobile trunk. After that event Janette Fennell vowed with a vengeance to try to stop this from happening to anyone else.

A simple solution to this problem is a trunk release button installed at the factory in all car trunks. Janette searched the Internet and began pulling news reports, court documents, and all other information on trunk lock-ins and was astonished at what she found. Since 1970 more than 1,300 people have been victims of trunk entrapment. Of these people some 275 victims did not survive. She

Over the course of four weeks, 11 children died after accidentally trapping themselves in car trunks. The deaths made immediate action necessary. It was inexcusable that it took the deaths of 11 children to finally bring national attention to this issue. In 1998 the National Highway Traffic Safety Administration (NHSTA) put together an expert panel on trunk entrapment and invited Mrs. Fennell to give her data to this panel. The panel made its recommendations in June, 1999 and paramount among them was that the NHSTA requires all new vehicles be equipped with internal trunk release mechanisms by the year 2001.

Nothing will change until the NHSTA writes the regulations and it's on the books. Now all Ford, Lincoln, and Mercury lines are equipped with

CAR TRUNK TRAGEDIES

*The deadly truth
and how to
prevent it.*



by Frank Markisello



The bandits removed the car seat with the baby in it and placed him on the garage floor. They then started the car and drove to a remote location, with the baby left in the garage and the Fennell couple in the trunk.

The Fennell's tried to escape by pulling at everything in the trunk that they could grab including wires, the carpet and lights. The robbers then stopped the car, opened the trunk and robbed the Fennell's at gunpoint, taking their jewelry and money. Then they closed the trunk and left the Fennell's for dead.

After the robbers left, Mrs. Fennell felt a cable sticking out of an area of carpet that they had ripped away. They both pulled on the cable and to their surprise the trunk released. Unbeknown to them at the time, they

called the FBI and the National Bureau of Criminal Statistics and was floored to find out that no one had kept accurate records of crimes involving trunk entrapment.

In 1996 Janette Fennell founded an advocacy group named TRUNC (Trunk Releases Urgently Needed Coalition). Janette contacted car companies and the government about these issues, but auto makers did not want to install releases inside the trunks of their new cars. She then met with Congressman Matt Stupak of Michigan. After the two met, Congressman Stupak has been involved in legislation requiring emergency trunk releases on all vehicles.

The urgency of their cause suddenly intensified in July, 1998.

interior trunk releases handles that can save a child or adult who is trapped in the trunk. In addition, General Motors is offering retrofit trunk releases for most of its cars dating back to 1990. I checked with a dealer and they said that it costs about \$50.00 for the unit.

The NHSTA panel recommended that manufacturers should base their designs for the internal trunk releases upon the cognitive and physical abilities of young children. The panel reasoned that an internal trunk release mechanism that is designed to be operated by small children, would also work well for adults.

By December, 2000 the NHSTA panel on trunk entrapment should reconvene to assess progress made in implementing the above

recommendations. There have since been numerous reports regarding trunk entrapment on quite a few TV programs including Oprah, and in magazines such as Extra, Car & Travel Magazine and Redbook Magazine.

The following is a trunk release status list for many of the leading car manufacturers:

TBD (To Be Determined); MY (Model Year).

BMW

Retrofit Kit: Available Spring/Summer 2000

Estimated cost: TBD

Models/Model Years: TBD

New Car Design: Models/Model Years: TBD

MY to complete installation: TBD

Comments: An internal trunk release is under development. In addition, BMW has offered release devices that, when pulled allow the rear seats to be folded down to access the passenger compartment. These releases were not designed specifically to address the problem of trunk entrapment. They are currently offering as optional equipment in some 4-door models.

The 2000 MY 3 series 2-door models will be introduced with folding rear seats as standard equipment.

Daimler Chrysler

Retrofit Kit: Available: Summer 1999

Estimated cost: TBD

Models/Model years: Most 1993 and later years.

New car Design: Models/Model years: TBD

MY to complete installation: TBD

Ford Motor Company

Retrofit Kit: Remains under study.

Have focused company efforts on standard fit trunk releases.

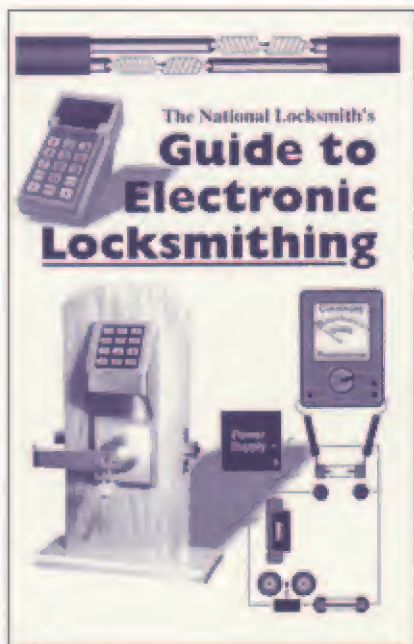
New car Design: Plan to include internal trunk releases as standard equipment in all passenger cars began on 6/22/99 with the 1999 Crown Victoria and Grand Marquis. As of 2/14/00, all but one of the 2000 MY Ford, Lincoln, and Mercury passenger cars were fitted with an internal trunk release. The phase-in will be complete with the Ford Focus on 7/17/00.

Comments: Ford's inside trunk release is cable-operated with a T-shaped handle. The handle is sized for

a child's hand and is made of polypropylene with a phosphorescent "glow in the dark" additive, so it needs no electrical power. The handle is quick charging and long-lasting (up to 8 hours when fully charged). The handle operates with a pull motion and is marked with symbols to indicate its operation. It operates with low effort and requires only one inch of travel - factors intended to help make the trunk release system child-friendly.

Through December 1999, over 585,000 Ford, Lincoln and Mercury vehicles were built with standard fit internal trunk releases.

Ford has sponsored several educational initiatives warning of the dangers of trunk entrapment including a Family Safety Bulletin in the July 1999 edition of Sesame Street Parents Magazine. In addition the company's Safety Advice Card was revised to add a warning about trunks and was in production in September 1999. Applicable owner guides and the Ford safety web page were updated to include warnings of the dangers of trunk entrapment.



Electronic Locksmithing

Everyone knows there's big money in selling, installing and servicing electronic security such as mag locks, electronic strikes, and simple access control.

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#EL - 1

General Motors

Retrofit Kit: Available: March 1999
Estimated Cost: \$50 Installed
Models/Model Years: 1990-2000 passenger vehicles with rear compartments except 1990-1991 Buick Reatta, 2000 Buick LeSabre, 1990-1993 Cadillac Allante, Fleetwood Brougham, 1997-2000 Cadillac Seville, 2000 Cadillac Deville, 1990 Chevrolet Caprice, 1990-1991 Chevrolet Cavalier, 1990-1996 Chevrolet Beretta, 1990-2000 Chevrolet Metro/Prism, 1998-2000 Chevrolet Corvette, 2000 Chevrolet Impala, 1990-1992 Oldsmobile Toronado/Trofeo, 1990-1991 Pontiac Sunbird, 1990-1993 Pontiac Lemans, 2000 Pontiac Bonneville.

New Car Design: Phosphorescent T-handles in all vehicles with trunks beginning 1/1/01. Phosphorescent handle plus a heat and motion sensitive release sensor in Impalas and Monte Carlos as of 7/00. Sensor plus phosphorescent handle in other vehicles beginning in 2001.

Comments: 2500 retrofit handles have been shipped to dealers. Other trunk safety efforts include lockable pass-thrus, the inclusion of trunk safety in public service campaigns, and the brochure "Trunks are for Elephants, Not for Kids."

Honda

Retrofit Kit: Available: as soon as feasible

Estimated cost: TBD

Models/Model Years: TBD

Comments: Since 1990 four Honda Models have been equipped with fold-down rear seat backs that can be unlatched from inside the trunk by pulling a release handle(s). This feature has the potential to prevent trunk entrapment. Honda plans to study the GM and Ford models.

Hyundai

New Car Design: Hyundai has been installing an emergency trunk release feature on all of its vehicles for over one year.

Isuzu

Comments: Isuzu does not import into the US any vehicles with trunks and has not done so since the early 1990s. The majority of Isuzu produced passenger cars that were sold in the US are over ten years old. There are

no plans at this time to produce a retrofit trunk safety kit.

Mazda

Retrofit Kit: Currently under consideration, no decision has been made yet.

New Car Design: Models/Model Years: all 2000 MY vehicles with trunks, according to the following production schedule: 2000 Protégé in December 1999, 2000 Miata in February 2000, 2000 Millenia in February 2000, and 2000 626 in May 2000.

Comments: The internal trunk release incorporates a T shaped handle that opens the deck lid when pulled and is designed to glow in the dark for several hours following brief exposure to ambient light.

Mitsubishi

Retrofit Kit: Available: first kit available by March 2000, remaining kits available shortly thereafter

Estimated cost: \$25-33, depending on model.

Models/Model Years: 1999-2000 Galant kit available as a dealer-installed part at the end of March 2000. The next vehicle to have the trunk release device part available at dealerships is the 1997-2000 Diamante, followed by the 1997-2000 Mirage and the 2001 Eclipse Spyder.
New car Design: "T" shaped trunk release handles will be factory installed beginning with 1/1/01 production.

Comments: "T" shaped trunk release handle is still under development.

Information regarding the trunk release devices will be included in future product training guides and consumer safety videos for the 2001 MY. Mitsubishi is also exploring opportunities to partner with dealers for public education events in 2000 to include this topic.

Nissan

Retrofit Kit: Available: later this year

New Car Design: Models/model years: 1990s-era Nissan and Infiniti models that have trunks, beginning with higher volume models.

Models/model years: available as a dealer option later this year on new Nissan and Infiniti vehicles that have trunks.

Comments: To alert customers to the

consequences of trunk entrapment, Nissan will include in owner's manuals information regarding how to avoid trunk entrapment. The information will be included when manuals are next printed.

Porsche

Retrofit Kit: Existing models already have design features which reduce the potential for entrapment: a small trunk and a lid with a relatively grip-less underside, an outboard edge which would be out of the reach of a small child when open and a level of resistance when open that may be greater than the force a small child could exert.

New car design: Models/model years: TBD

MY to complete installation: TBD
Comments: Porsche looks forward to working with the Expert Panel to develop recommendations that will reduce the likelihood of injury associated with trunk entrapment.

Saab

New Car Design: Models/model years: available on certain 2003 MY vehicles.

MY to complete installation: TBD
Comments: Until the introduction of the Saab 9-5 Sedan for MY 1999, Saab produced only hatchback and convertible [with small trunks] models for the past several years. Saab has consulted with General Motors regarding GM's research, and sees promise in new passive technologies.

Subaru

Retrofit Kit: Available: September 1, 2000

Estimated cost: less than \$50

Models/model years: 1995-2000 MY Legacy sedans, 1993-2000 MY Impreza sedans.

New Car Design: Models/model years: available on new 2001 and 2002 MY cars produced on and after 1/1/01.

Comments: Retrofit kit design is a phosphorescent handled lever that attaches to the key lock activation rod to the latch release lever. Approximately 2 to 3 centimeters of movement of the handle will activate the latch release. Plan to make Subaru owners aware of the availability of the retrofit kits through Subaru Owner

Publication "DRIVE" Magazine and through postings at Subaru dealers.

Subaru has already included language in Owner's Manuals warning of the precautions necessary to prevent young children from locking themselves in the trunk.

Suzuki

Retrofit Kit: Available: Summer 2000

Estimated cost: TBD

Models/model years: all vehicles with trunks.

New Car design: Models/model years: all vehicles with trunks. Not yet able to specify when these devices will be incorporated into vehicle production.

Comments: Retrofit kit will include an illuminated interior trunk release handle.

For Suzuki vehicles with folding rear seatbacks that provide a pass-through to the trunk, Suzuki will be providing rear seat tethers as a part of the retrofit kit. Suzuki is also planning to provide rear seat tethers in new vehicles with folding seatbacks at the same time that the interior release handles are incorporated into vehicle production.

Toyota

Retrofit Kit: Available: hope for Fall 2000

Estimated cost: TBD

Models/model years: 1993-2000 Lexus LS 400, 1992-2000 Lexus GS 300 & 400, 1992-2000 Lexus SC 300 & 400, 1992-2000 Lexus ES 300, 1995-2000 Toyota Avalon, 1992-2000 Toyota Camry, 1999-2000 Toyota Camry Solara, 1994-1998 Toyota Celica Coupe, 1990-1995 Toyota MR2, 1993-2000 Toyota Corolla Sedan, 1991-1999 Toyota Tercel, 1992-1999 Toyota Paseo, 2000 Toyota Echo.

New Car Design: Models/model years: all 2001

MY vehicles with trunks: Lexus LS 430, Lexus GS 300 & 400, Lexus IS 300, Lexus ES 300, Toyota Avalon, Toyota Camry, Toyota Camry Solara, Toyota Corolla, Toyota Echo and Toyota Primus.

Comments: Toyota reports that the inside trunk release for new cars is an easy to use luminescent handle that can be readily seen and operated by children. The retrofit kit is planned to be a similar design and will be available at any Toyota or Lexus dealer service or parts department.

Trunk releases are not planned for certain models because there is easy access to the passenger compartment from the luggage compartment or it is not possible to close the hatchback from the luggage compartment. These models are: Lexus LX 470, Lexus RX 300, Toyota Land Cruiser, Toyota Sequoia, Toyota 4Runner, Toyota RAV4, Toyota Sienna, Toyota MR-Spyder and Toyota Celica.

Volkswagen

Retrofit Kit: No retrofit devices available at this time.

New Car Design: No production systems released at this time.

Comments: Volkswagen has reviewed NHTSA's Notice of Proposed Rulemaking and would implement systems to comply with any NHTSA requirements that are issued. Volkswagen and Audi intend to utilize the time available until the effectiveness of the NHTSA Standard to develop appropriate design solutions, and note the potential conflict with FMVSS 206 for vehicles that have folding rear seats or removable partitions between the occupant compartment and the rear door.

Volvo

Retrofit Kit: Currently studying the issue.

New Car Design: New Volvo S-80 Sedan has an internal release system in the trunk to permit the rear seat to be folded down from the inside, permitting exit from the trunk. Volvo plans to include information on trunk safety in next version of the owner's manual.

Comments: The system in the new Volvo S-80 does not meet the requirements in NHTSA's proposed rulemaking. Volvo is investigating trunk release systems for implementation that would meet the requirements in the rulemaking.

To address this issue of trunk releases for old and new vehicles, I have designed a device

called the Quick-Out that can be installed on virtually all automotive trunk locks. It allows a child or adult the ability to release the latch if trapped inside. This device glows in the dark and is so simple to use that with just the pull of a finger the trunk



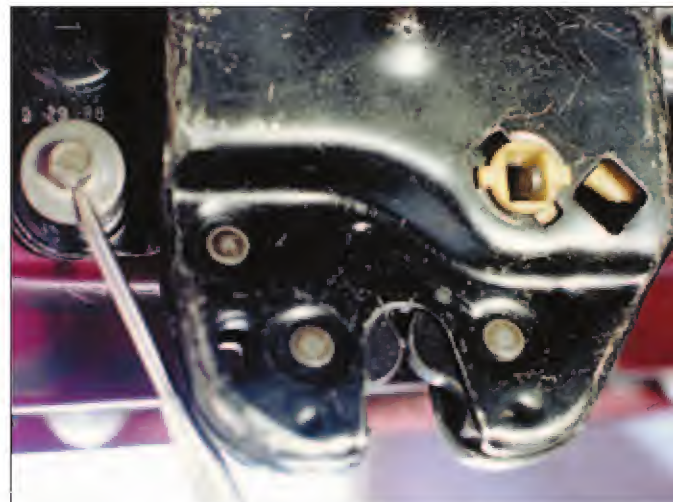
1. With just the pull of a finger the trunk will pop open.

will pop open. (See photograph 1.) It can be installed on cars with electrical locks, manual locks or even cars with cable releases in about 15 to 20 minutes.

Quick-Out Installation:

1. First remove the latch mechanism from the trunk lid. There will usually be two to four bolts securing it. (See photograph 2.)

2. Fish the wire from the Quick-Out through any opening on the side of the latch mechanism. (See photograph 3.)



2. Remove the latch mechanism.



3. Fish the wire through any latch opening.

3. Wrap the wire around the release lever in the latch mechanism and back through the opening, exiting the latch. (See photograph 4.)

- If the car is equipped with an electric trunk release opener, wrap the Quick-Out wire around the solenoid lever. (See photograph 5.)

- If the car is equipped with a front compartment cable trunk release, wrap the Quick-Out wire around the lever where the cable is connected.



4. Wrap the wire around the release lever.

(See photograph 6.)

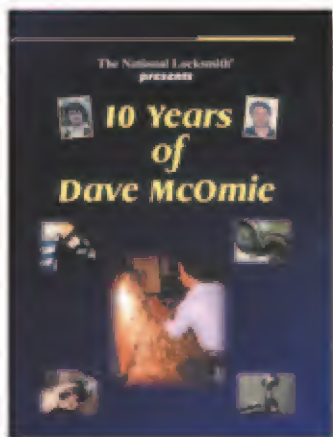
- If the car is a General Motors or features a similar latch, wrap the Quick-Out wire around the release lever. (See photograph 7.)

4. Pull the excess wire through the latch until the ring comes in contact with the mechanism. Then wrap the wire around the screw attached to the side or the Quick-Out pull ring.



5. Wrap the wire around the solenoid lever.

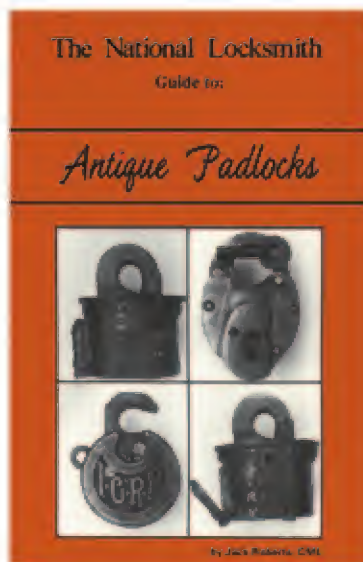
10 Years of Dave McOmie



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#DM - 10

Antique Padlocks



Finally there is a book to give you all the information you need about old interesting locks.

[CLICK HERE TO LEARN MORE](#)

#PAD - 1



6. Wrap the wire around the cable connection.



8. Wrap the wire around the Quick-Out screw.



7. A General Motors latch attachment.

Tighten the screw and cut excess wire off. (See photograph 8.)

5. Reinstall the lock mechanism on the trunk lid, being sure the tailpiece from the lock cylinder is in the latch slot on the rear of the mechanism. (See photograph 9.)



9. Reinstall the lock mechanism.

6. Use the

square piece of Velcro supplied with the Quick-Out and install it on the trunk lid. The Quick-Out pull ring already has Velcro attached to secure the ring to the trunk lid. (See photograph 10.)

Photograph 11, shows the Quick-Out pull ring glowing in total darkness.

Anyone can have a Quick-Out Trunk Release installed today and not wait for legislation to pass. By then, it could be too late for someone. We as locksmiths who deal in security and safety everyday, can help in accomplishing the task of eliminating the dangers of trunk entrapment today.

For more information on A Able's Quick-Out Trunk Release Mechanism contact: A Able Locksmiths, 86-19 97 Ave., Ozone Park, NY 11417, Phone: (718) 847-1377. Circle #323 on the Rapid Reply Card.



10. Attach the Velcro to the trunk lid.



11. The Quick-Out pull glows in the dark.

Transponders

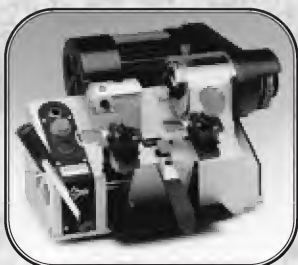
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#TS - 2001

TNL

TECHNITTIPS

YEAR-END PRIZES



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Silca Bravo Duplicator



1st Prize

HPC's 1200PCH
Punch Machine



2nd Prize

Mas Hamilton's
PowerLever 2000



3rd Prize

Curtis 2200 Duplicator



4th Prize

SDC Magnetic Lock,
Keypad and Exit Switch



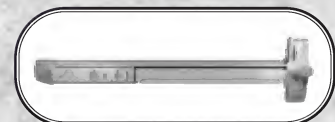
5th Prize

Securitron 12-Volt Unlatch Plug in
Trans & Touchpad Retail Value \$650



6th Prize

LaGard "SmartGard"



7th Prize

Detex Advantex



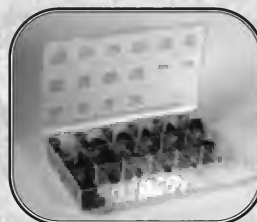
8th Prize

Arrow 400 Series Alarmed
Exit Device & S-75 Mounting
Plate Kit for Narrow Stile
Aluminum Doors



9th Prize

\$500 in BWD Products



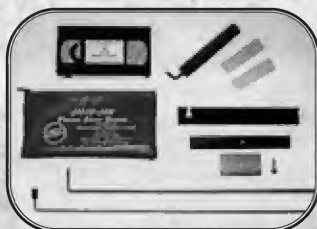
10th Prize

\$500 in ASP Auto Locks



11th Prize

\$500 in Strattec Auto Products



12th Prize

Tech-Train "Jiffy Jack"



13th Prize

Sargent & Greenleaf 6120
Electronic Safe Lock



14th Prize

High Tech Tools
2000 Pro Set

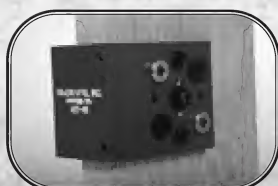


15th Prize

Slide Lock's Master "Z" Tool Set



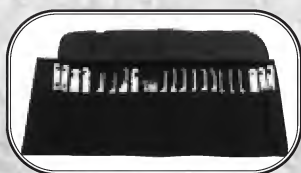
16th Prize
 ESP Products Sampler



17th Prize
 Major Manufacturing's
 HIT-111 Drill Guide



18th Prize
 Abus Padlock's Marine
 Padlock Display (\$120 Retail)



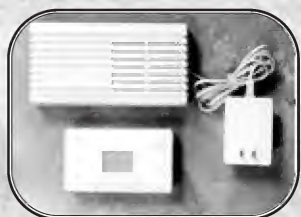
19th Prize
 Mark Bates Associates
 Falle Pick Set



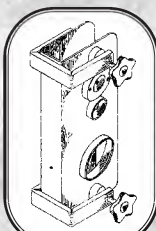
20th Prize
 Baxter JV-1 & JV-5
 Code Books



21st Prize
 Sieveking Products
 Squeeze Play



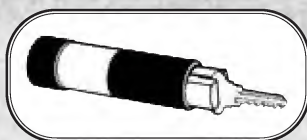
22nd Prize
 Rodann's TX 500
 RX 5990 Wireless Door
 Annunciator System



23rd Prize
 A-1 Security Manufacturing
 Installation Jig



24th Prize
 Keedex Sampler



25th Prize
 Framon
 Impressioning
 Handle



26th Prize
 Gator Tool Multi-Purpose
 Facecap Tool

These Prizes Awarded Each Month!

- **BWD Automotive Ford or GM Kwikit**
- **Wedgeco™ Key Extractor Kit**
- **Strattac Racing Jacket**
- **HPC Air Wedge™**
- **Sargent And Greenleaf 4400 Series Safe Deposit Box Lock**
- **A-1 Security Products**
- **ILCO Key Blanks (100 Blanks)**
- **Keedex "SPIN OUT" Screwdriver**
- **Tech Train Training Video**
- **Sieveking Products Gm E-Z Wheel Puller**
- **Major Manufacturing Products**
- **Slide Lock's "Z" Tool Opening Set**
- **The Sieveking Auto Key Guide**
- **Jet Key Blanks (100 Blanks)**
- **High Tech Tools**
- **LaGard Combo Guard**

Send in your tips, and win!

How To Enter

Send a tip on how to do any aspect of locksmithing. Certainly, you have a favorite way of doing something that you would like to share with other locksmiths. Write your tip down and send it to:

*Jake Jakubowski, Technitips Editor,
 The National Locksmith
 1533 Burgundy Parkway
 Streamwood, IL 60107-1861*

Or send your tips via
 E-mail to: Natlock@aol.com

Rules & Regulations

Each tip submitted must include your full name, street address (no P.O. Box numbers), city, state, zip code, phone number, fax number or e-mail address.

Every Tip Published Wins

If your tip is published you will win one of the monthly prizes listed. At the end of the year, we choose winners from all the monthly tips published, that will be awarded one of the fabulous year end prizes. All you have to do to win is enter.

Prizes are arranged according to suggested retail price value.

**Tips Start
on Next Page**





**BWD KWIKIT WINNER:
Stamp Machine
Opening Tip**

The call was to open a locked stamp machine at the Post Office. The machine had a Medeco cylinder (in a push-in handle like on vending machines) and the key was lost. The maintenance man had tried to drill the cylinder and wound up calling me to get the unit open.

I knew there was no way to pick the lock and there was not another unit like this one that I could look at to check for a drill point. I took a chance and drilled a 1/4" hole in the side of the machine, 1-3/4" back from the face and 3/4" of an inch above the top of the Medeco cylinder. (See illustration 1.)

I used a modified car-opening tool to reach through the hole and depress the locking dog on the inside of the cabinet. As you can see by the illustration, the locking dog is on the right side of the lock as you face the cabinet. I applied inward pressure to the handle as I depressed the locking dog and the lock sprung open.

The hole on the side of the cabinet was easily repaired and painted to match the finish on the machine and I installed a new lock. The opening took less than fifteen minutes.

Later, looking at some change machines in coin laundries and car washes, I determined that this same trick would work on those as well, provided they have the pop-out handle.

*Lee Whiteford
California*

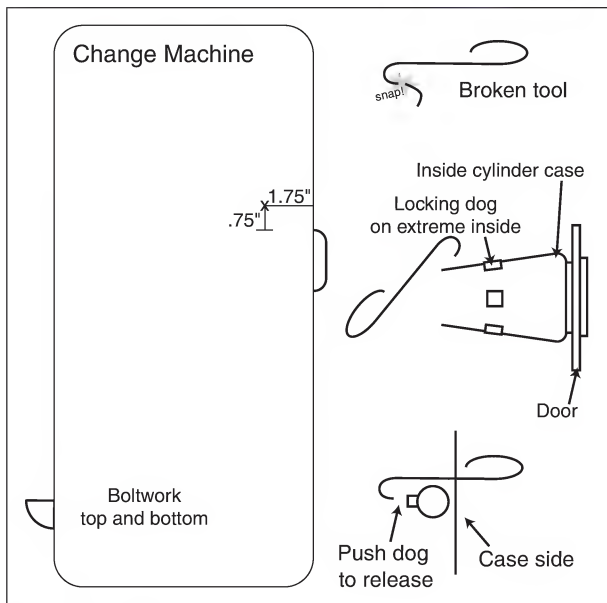


Illustration 1.

Jake's Jabber...

"Seven! Seven, is the winner!"

It's July and July means ALOA. This year ALOA means Las Vegas and Las Vegas means you get a chance to try your luck. The problem is that the odds are with the house. Like my granddaddy used to say: "Son, y' jes' can't beat the man at his own game!"

Like every rule that was ever formulated, there is an exception to this one. Why? Because in Las Vegas, the locksmiths attending the convention and tradeshow have a sure-fire, can't-lose, one hundred and ten percent guaranteed pay-off! The ALOA trade show and classes.

Here is the opportunity to visit one of the top vacation spots in the country, maybe win a little on a slot and at the same time see bunches of new products, tools, books, and van equipment and learn skills that will make you a winner all year long.

And all of it, including the ALOA classes are geared to make you a more competent, knowledgeable locksmith.

At the ALOA trade show and convention, the odds are stacked in your favor for you to come home a winner.

As many of my readers know, I am a proponent of product knowledge, and the skills necessary to utilize that knowledge. It's productions like ALOA's annual convention and trade show - as well as the conventions and trade shows of state associations and distributor shows - that provide locksmiths a venue in which to either bring their skills up to their full potential, or to learn new skills and ways of implementing them.

Try to make 'Vegas this year and see what's happening in your industry and how you can take advantage of the changes, the new products and the new procedures that are coming into play.

While you're at the show, take time to come by *The National Locksmith's* booth and say hello.



**by Jake
Jakubowski**



**WEDGECO™ KEY
EXTRACTOR KIT WINNER:
Maid Key Function**

My customer had a weekly maid service and wanted me to key her locks in such a manner that the maid's key would only work when the owner wanted it too.

Using a standard Schlage mortise cylinder in a Lori deadbolt, I came up with the following solution.

I drilled six holes at the eleven o'clock position in the mortise cylinder -which would allow me to create a second shear line. Next, I tapped the holes to accept Allen screws and pinned the new chambers (except for number 6) to accept the maid's key as well as the

"master." (See illustration 2).

The master works the cylinder at all times, but the maid's key will only work when the homeowner "sets" the maid's function on the lock with the master key.

To activate the maid function, the owner inserts her key with the plug at the twelve o'clock position and turns the plug to the eleven o'clock position and removes her key. Now the maid's

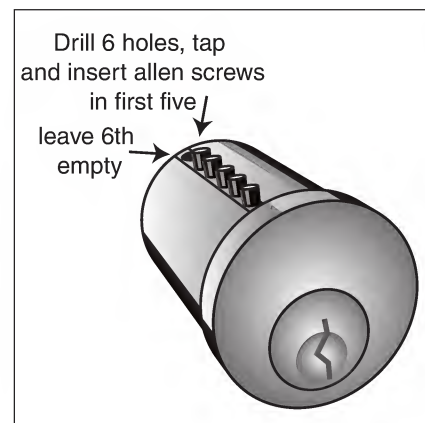


Illustration 2.

key can be used to lock or unlock the door, but can only be removed from the lock in the eleven o'clock position.

To deactivate the maid's key, the owner inserts her key in the plug and turns it back to the twelve o'clock position and removes the key. The lock is now in the normal operational mode and the maid's key will not operate the lock.

Of course, the modified cylinder does not lose its rekey potential and can be rekeyed quickly in the event that either key is lost or stolen.

David Craig
Illinois



STRATTEC RACING
JACKET WINNER:
**Easy
Contour/Mystique
Key**

Here's an easy way to generate the door key on 1996 and up Ford Contour and Mercury Mystique. First open the trunk and remove the clip for the trunk lock. Next, pull the trunk lock out of the car. The lock slides out in your hand. Then, turn the lock over, insert a key and read the wafers. These wafers are in your sight and the depths can be very easily read.

After determining the depths, cut the key.

Daniel Mandell
North Carolina



HPC AIR WEDGE™
WINNER:
**Another Contour
Opening Tip**

In the March issue of *The National Locksmith*, I read about opening the Ford Contour/Mystique with an under the window tool. Here is how I open them. It is much simpler and the chance of damage is very low.

I use an "L" tool on the right rear door. The arm of the L is 4-1/4" long. Gently wedge the window and with the tool facing the rear of the car, insert the tool slightly forward of the exterior door handle.

Lower the tool under the exterior door handle and slide the tool rearwards until it contacts the door/wheel well frame. Continue moving the tool to the rear following the contour of the door until the tip of the tool is under the rear window channel.

Now turn the tool inwards as you continue moving the tool to the rear, until the shaft of the tool is tight to the window frame and pointing to the inside of the car.

Twist the tool, bringing the tip to the front of the car and unlock the door. To remove tool, just reverse everything.

What you are contacting is the bell crank. Using this method you don't have to worry about catching wires inside the door or damaging the privacy film - or tint - on those cars that are so equipped.

I wouldn't make the arm of the tool any shorter than 4" (you might not reach the bell crank) or longer than 5" (it might bind on the inner panel). I had one customer comment that I was faster then he was using his key!

Art Stevens
Canada



SARGENT &
GREENLEAF 4400
SERIES SAFE DEPOSIT
BOX LOCK WINNER:
**Securing Padlocks
and Light Bulbs**

Here is a tip on how to secure your customers padlocks against theft and

IC Cores: Small Format



Everything you ever need to know about
how to sell, service, install and
troubleshoot interchangeable cores!

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#ICSF - 1

loss. I have used this method on construction and storage trailers where merchandise and equipment is stored. Once an employee unlocks the lock, they usually lay the lock down and before you know it the locks are missing.

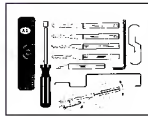
To prevent this type of loss, I grind a spot on the side of the lock and weld a length of chain to the lock and then secure the chain to the trailer. Once you unlock the padlock it cannot be lost and it is available when the customer or their employees are ready to relocate the trailer.

Also, here's an idea that has saved me some broken bulbs on the Master light from Lockmasters. I attached a plastic tube on the side of the case to insert the light when you are not using it. This keeps the bulb out of harm's way.

Larry Teal, CRL
New Mexico

Editor's Note: Larry, thanks for your tip. You may or not be aware of it, but most padlock manufacturers offer chains and cleaves' that attach to the shackle of their padlocks for the same purpose as you outlined in your tip. Of course, the procedure you describe seems to be really

heavy-duty.



A-1 SECURITY
PRODUCTS WINNER:
Knock! Knock!

I am occasionally asked to install a door knocker.

Determining the location of the hole for the top screw is easy, but the bottom one is more of a challenge, since a template is usually not available.

I made a bottom hole locator from a 10-32 bolt by cutting the head off the bolt and grinding the cut end to a point.

To use this locator tool, I just screw the sharpened bolt into the bottom hole of the knocker and install the knocker in the previously drilled top hole. Pressing on the bottom of the knocker will cause the point of the tool to scratch a little mark in the paint of the door exactly where the bottom mounting hole should be.

Then remove the locator bolt, drilling the hole and completing the installation.

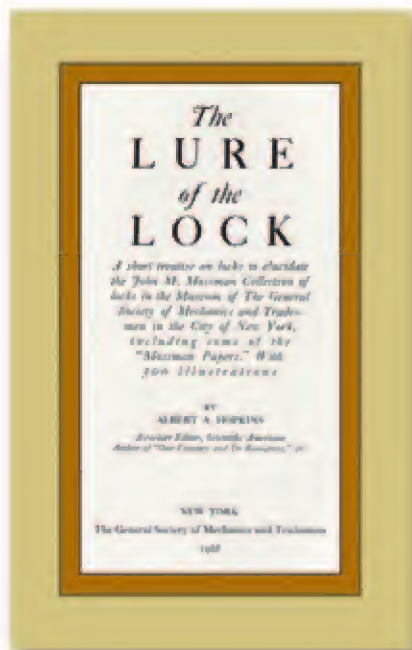
I install enough doorknockers that I have made a few "locators" in



Illustration 3.

different sizes to match the bolts of most knockers I will encounter.

Ted Swirsky
New Jersey



The Lure of the Lock

This hardcover book, compiled in 1928, features dozens and dozens of beautiful photographs on ancient through modern locks.

CLICK HERE TO LEARN MORE

#LURE

ILCO KEY BLANKS (100) WINNER:
Recycling Broken Picks:



I have found a new use for those broken and bent picks that we have just lying around.

As you can see in *illustration 3*, I measure about 1" above the handle and break the remainder of the pick blade off. I can now use the modified pick to easily remove the clips from Sargent cylinders by inserting the tip of the old pick and pushing the clip out. This cuts down on the number of broken clips when working on Sargent plugs.

If you have a lot of clips to remove, I recommend wrapping a rag around the handle of the tool to prevent hurting the palm of your hand.

*Lowell Chalk
Florida*

KEEDEK "SPIN OUT" SCREWDRIVER WINNER:
Easy Edge Bore Enlargement



Every once in awhile I have to enlarge the edge bore (latch/bolt hole) on a wooden door to accommodate a new lockset. Enlarging these holes from 3/4" to 7/8" or 1" can sometimes present a challenge.

Rather than reach for a boring jig or inserting a small hole saw into a

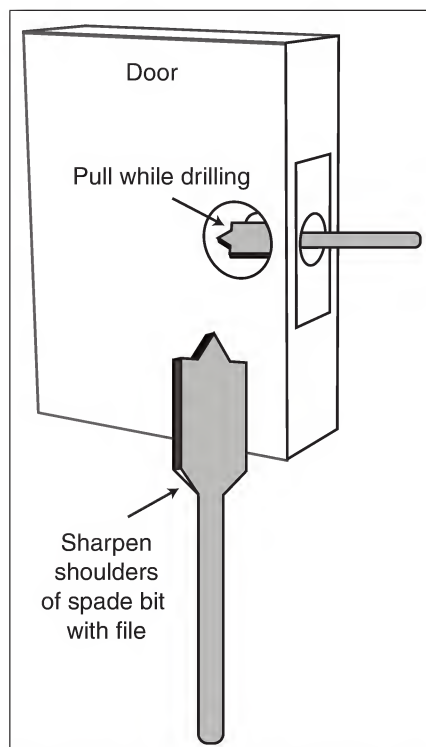


Illustration 4.

larger one, I use modified spade bits to do the job. I take a 7/8" or a 1" spade bit and sharpen the shoulders of the bit. (See *illustration 4*.)

As you can see in the illustration, I insert the shank of the spade bit into the edge bore through the cross bore and out through the latch side of the edge bore. Next I attach my drill motor to the shank of the spade bit.

While running the drill on low speed - to get it started - and making sure to hold the drill and bit in alignment, I slowly pull the spade bit backwards through the edge bore hole, increasing the speed slightly as the shoulders of the bit bite into the wood.

This is a fast, easy and neat way of enlarging these bores when necessary.

*Jon DiStafno
West Virginia*

TECH TRAIN TRAINING VIDEO WINNER:
Opening the ABUS 78/50



In the April issue of *The National Locksmith*, Sal Dulcamaro suggested a drill point for the ABUS combination padlock. I think I have a little better drill point and a quicker way of opening this lock.

Look at the code number on the back of the lock. Using the second number in the code as a reference point, measure straight up 1/2". Center punch this mark and drill a 1/8" hole (carefully) through the back cover. Using a small scope, look into the hole and you will see that you are right on top of the opening position. Line up the gates, pull the shackle, and the padlock is open.

Each time you dial one of the wheels into position, you can look at the dial and record the number. This way, once the lock is open, and you have repaired the hole, you will have the combination.

*James A. Bradshaw
Canada*



SIEVEKING PRODUCTS GM E-Z WHEEL PULLER WINNER:
No Wedge Contour Opening

I still hear a lot of locksmiths complain about the tight fit when

wedging the Ford Contour/Mystique for an opening. Many seem to feel they will break the glass when wedging it. Here's what I recommend.

Go to the car and remove the rubber weather stripping at the bottom of the glass. Yes, remove it. It's designed to come off. Once the weather stripping is removed you'll have more than enough room for tool insertion! There's no need for a wedge.

Insert your under-the-window tool and push the door handle outwards and your in. No force at all will have been used. Just remember to put the weather stripping back on. By sliding it into place, and pushing down. It's a fast and easy opening.

*Jonathan Muhammad
Georgia*

MAJOR MANUFACTURING PRODUCTS WINNER:
Major MANUFACTURING, INC.

Opening A 'Dead' Kwikset Latch

At one time or another, every locksmith encounters a Kwikset dead latch that dies and will not allow the door to be opened. In this 'dead latch' mode the Kwikset key-in-knob lock can't even be forced from the interior without doing damage to the door, frame or both.

Most often when a locksmith encounters this condition, they will take the inside knob off and proceed to destroy the latch mechanism by ripping out the 'guts' of the latch until they can reach in and pull the latch back with a pair of needle-nosed pliers or similar tool.

The problem with this approach is that you can break your pliers, twist screwdrivers out of shape, cut your fingers and frequently damage the door. My solution is simple, fast and ensures a scar free door.

Start by taking the inside knob off and exposing the locking boss (the half-moon shaped spindle that normally retracts the latch) will prevent you from pulling/pushing the outside knob off. Simply use the Kwikset Cylinder Tool to push the spring-loaded actuator back and push the knob out.

Now, you should be looking at the latch mechanism similar to that shown in *illustration 5*. Use a one-inch diameter hole saw and pilot bit. Insert

Continued from page 168

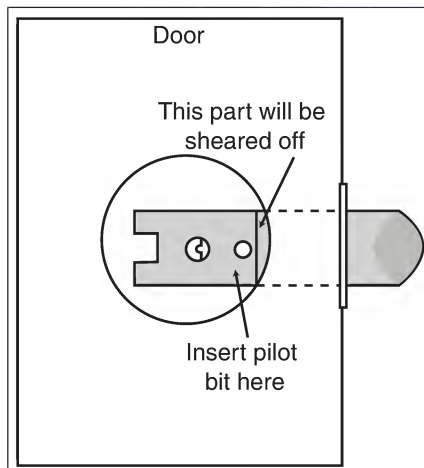


Illustration 5.

the bit in the retaining screw hole as shown in the illustration. Turn on your drill and shear the mechanism off as shown.

Now all you have to do is grip the tab of the latch with a pair of needle-nosed pliers (bent needle-nosed works best) and pull. The latch will retract, the door will open and you can sell the customer a new knobset.

*Paul A. Keen, Jr. CPL
 Pennsylvania*



**SLIDELOCK'S "Z" TOOL
 OPENING SET WINNER:
 Clip Removal Tool**

Here's a tip for removing the "C" & "E" clips from lock plugs with a tool we all have readily available to us in our trucks or service kits... our pinning tweezers.

Spread the tweezers, put the end of the tweezers against the end of the clip and work them back and forth as you apply pushing pressure against the clip, pushing it off the plug.

I've been using tweezers for removing clips for over 15 years and find they work on all plugs, regardless of size, even the imported ones.

*Richard Hollingshead
 Arizona*



**THE SIEVEKING AUTO
 KEY GUIDE WINNER:
 Ford 10-Cut Ignition
 Repair.**

When you come across those Ford ignitions where the ears are loose and will turn when they're not supposed to, they're easy to fix without replacing the ignition.

First, remove the ignition from the column, remove the buzzer actuator from the housing, and remove the plug from the housing. Next, turn the ears of the ignition about a 1/4" from their normal alignment. Sometimes, even though the ears are loose, you may have to force the collar around.

Now, take a 1/8" or smaller drill bit and drill a hole into the area of the plug where the ears would normally be in alignment. Drill into the plug just next to the shoulder of the spun weld part of the ears.

Look for the "V" or groove and drill just deep enough for your drilled hole to have a good "shoulder" on it. On the plug and below the end of the collar, put a mark in line with where you drilled your hole. Repeat this procedure two or three more times around the plug, spacing your holes evenly being sure to mark on the plug where your drilled holes are located. After you've drilled your holes move the ears into their proper position. If you insert an uncut blank, it makes it easier to line the ears up.

With the ears in the proper position use an automatic center punch to punch an indentation on the spun weld part of the ears right over your drilled holes. Line your punch up with the marks you made on the plug. This will force material from the ears into the drilled holes in the plug.

My automatic center punch is a larger one (the body is about 1/2 inch in diameter) and I punch over my drilled holes at least eight times to make sure there is a sufficient indentation to keep the ears from spinning out of alignment again.

I find this repair to be effective and profitable as long as I charge accordingly for my time and knowledge.

*Steve Craigen
 Texas*



**JET KEY BLANKS (100)
 WINNER:
 Jensen Letter Box
 Repin**

If you should run across the Jensen "K" series letterbox lock and need to repin the cylinder, your A6015 Chrysler Pinning Kit will work fine as a substitute.

You might have to file .0003 off of each pin, but I have found that Chrysler #1, #2, and #3 pins are the

same lengths as the Jensen pins.

*Alex Cartwright
 Illinois*



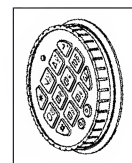
**HIGH TECH
 TOOLS WINNER:**

Ryder Truck Opening:

A customer had locked the keys inside a Ryder rental truck and wanted me to retrieve them. The truck was an International semi-truck and after precariously holding on to the mirror while trying to use an opening tool, I decided to try picking the lock.

The lock was a double-sided wafer lock and it picked quite easily. The passenger door picks to the right. Picking these locks is much easier than trying to use an opening tool.

*Curtis Martin
 Georgia*



**LAGARD WINNER:
 Inner Safe Door
 Opening**

I was called to open the inner door on a safe. Visual inspection showed me that the lock was a Medeco cam lock and my customer informed me that the armored car would be there in about five minutes to pick up the deposit locked in the inner compartment.

Knowing that there was no chance of picking the lock, I used my high-speed grinder to grind the face of the lock - and the collar - just about flush with the door of the safe. I had to be very careful not to scar the surface of the inner door.

Once I had the face and collar of the lock ground down nearly flush with the surface of the inner door, I was able to use a punch and hammer to drive the Medeco cam lock into the inner compartment of the safe.

Since the locking cam is at the rear of the key cylinder (and held on by a retaining screw), when I pushed the cylinder into the safe there was nothing locking the door and I simply pulled it open. The total time to open this particular inner door was three minutes.

*Bill Wessel
 California*



Free Advice To Young Locksmiths

by Tony Blass



*Time is a great teacher.
Unfortunately it kills
all it's students.*

Ah yes, I remember when I first started working as a locksmith twenty-five years ago. I was fresh out of locksmithing school, full of lemonade and vinegar, and I decided to start my own business, without ever having worked for anyone else. I simply equipped a van and placed an ad in the local phone book. Since I had no backup or home base to rely on, this gave me the opportunity to learn a lot of things in the absolute hardest way possible. There was a lot to learn. But things learned in this way are not soon forgotten.

As a service to the industry, I have decided to share with inexperienced locksmiths this hard earned general knowledge that I have stumbled over during the last 25-years. I do this for two very important reasons. Firstly, I would like to save others from the pitfalls and suffering that I have had to endure. Second, because I have nothing else to do right now.

My first bit of advice to novice

locksmiths is: Make sure you have explored all other career possibilities. Be aware that there are promising opportunities out there in such cutting edge fields as poodle grooming, toxic waste removal, and bomb deactivation.

If, after all, you still have your heart set on locksmithing, then here are some general guidelines that I have offered to many of my apprentices:

Early in your career, since you will be lacking experience, you are going to run into jobs that you just won't be able to complete. In order to avoid looking unprofessional, you should have at all times at your disposal, a list of ten excuses to offer to the customer explaining why you were not able to complete the job.

Here are some examples of the excuses you could use to obscure the situation:

1. The freenpeg supporting the inner remelkrantz has gone kaflouie on your lock. Sorry, but we don't stock those parts because of my bosses' religious beliefs.
2. Corrosion has eaten away the main Hemelforth on this lock and the back-up suffers from a lazy-cam. It's sorta technical, but the bottom line is that we are going to have to replace this whole thing.
3. I can't fix this lock because the zipnoid factor has dipped below acceptable levels, and the new ozone rules require that we replace the lock altogether, or face immediate deportation.
4. Sorry you will have to get some one else to finish this job, I am a volunteer fireman and I just got a call that someone's head got stuck in a coke machine.

Here are some further guidelines for novice locksmiths:

- Never lose your temper with anyone while holding your rat tail impressioning file.
- Whenever the customer has a complaint, always blame the owner of the business for the problem; even when you are the owner of the business.
- When doing a house call, always ask the customer's permission before rummaging through their refrigerator for a beer or

sandwich ingredients.

- When ordering inventory, never be enticed by the volume deals that suppliers offer on items, such as giving you a price break if you buy over 100 Edsel glove box locks, unless you are looking for something to hand down to your grandchildren.
- Always remove your baseball cap with the beer cup holders on each side before going to a job.

If you are asked any of the following questions by your customers, the answer should always be no:

- Do you accept anything besides money for payment big boy?
- Can you bill my ex-husband for this job?
- Any question that begins with, "While you are here..." Such as, "While you are here, could you help me catch my stray rattlesnake?" (or stray skunk, tarantula, husband etc.)
- Will you take a third party check originating in Islamabad?
- Would you like to slip into something more comfortable until my husband gets home?
- Would you like to know why I am changing my locks?
- Would you like to make a fortune in Multi-level marketing?
- Would you mind pulling on my finger?

Never shoot through a yellow light unless you are sure the car in front of you has the same plans.

Clear up all the loose ends in your life before working on a steering column containing an airbag. Also, before working on airbags, try to sharpen your reflexes to the point where you are able to avoid a Phillips screwdriver coming towards your

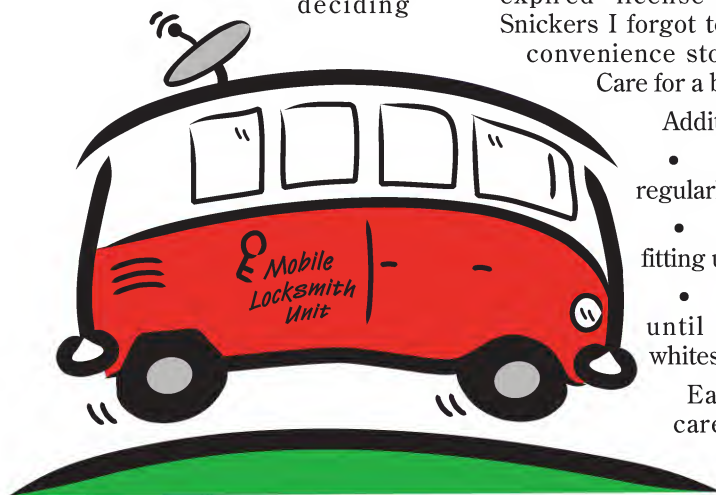


face at the rate of 2,000 mph. One way to practice this is by asking your wife the following question while she is holding a kitchen utensil, "Honey, did that dress you are wearing shrink in the wash?"

If you hear a loud scraping sound while coming to a stop in your van, start thinking about where you are going to get \$500.00 for a brake job or a louder radio.

Here is some advice for when you get pulled over by a policeman.

- While he is deciding



whether to give you a ticket or not, he will usually ask you this question: "Do you know why I pulled you over?" This is a trick question. The correct answer is: "Why no sir, I don't sir, officer, your highness, sir. And top of the morning to you, care for a doughnut?"

Here is the wrong answer to that same question:

- "Well let's see officer, you might have pulled me over for the two red lights I ran, my broken tail light, expired license tags, or the Snickers I forgot to pay for at the convenience store back there. Care for a beer?"

Additional advice:

- F l o s s regularly.
- Wear loose fitting underwear.
- Don't fire until you see the whites of their eyes.

Early in your career put a lot of effort into finding a mechanic that

can diagnose what's wrong with your van the FIRST time you bring it in. This way, you will not have to listen to statements such as, "Well, I guess replacing your transmission didn't take care of that noise that you brought your van in for, but you would have needed a new trans eventually anyway. And don't worry, I will find out what is wrong with this van if I have to replace every last part on it. By the way, what is the limit on your credit card?"

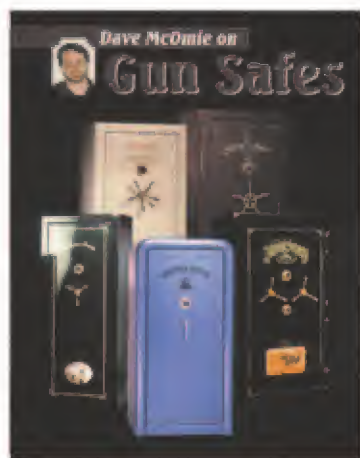
If you do find a mechanic that can fix the problem the FIRST time, then do the following three things.

- Call me and give me his number.
- Ask him to be godfather to your children, so that he develops an emotional tie to your community.
- If he moves to another area, follow him and relocate your family and business to that area.

Always carry a roll of duct tape in your van. This can come in handy in a number of common situations such as the following:

- Your customer is way too talkative while watching you work, and you need a way to muffle the sound.
- You have just finished stomping your malfunctioning cell phone into

Gun Safes

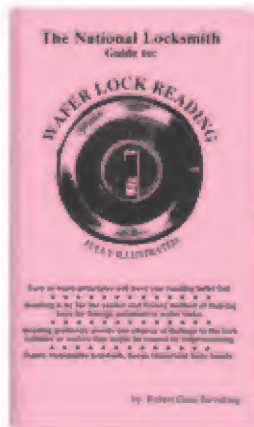


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#GS - 1

Wafer Lock Reading

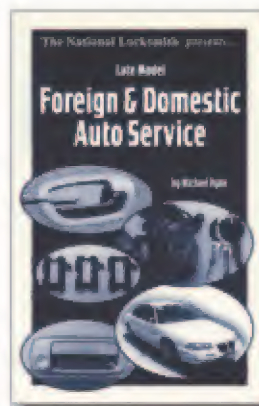


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#WLR - 1

Foreign & Domestic Auto Service



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#FDAS - 1

the pavement and you need something to strap the splint onto your broken leg.

- You find a dead whale on the beach and you want to bring it home to show the kids, but you need a way to attach it to the top of your van.

Never do anything strenuous after a large lunch, such as trying to change a flat tire on your van, without a jack.

Always practice safety first. As an example, never ask a female customer when the baby is due unless you are absolutely sure she is pregnant. This can put you at risk for serious bodily injury. It took me two painful mistakes to get that one down.

If, like myself, you are fortunate enough to reach the age of 50 years, always look in the mirror before you head out to work to check for the following:

- If, during the course of the previous evening, you finally broke down and applied a bottle of Lady Clairol's "LOSE THE GREY IN A DAY", then you should check your scalp for blistering. You may need immediate medical attention.
- If you stand straight up in front of a full length mirror, you will probably

notice a serious listing to the left. This is due to driving in a van with bad suspension and your right foot extended on the gas pedal for about 400,000 miles. If you have an X-ray taken of your spine at this point, it will look like an overhead view of a 27 car pile-up on the interstate.

There are things that you can do to compensate for this leeward tilting, and thereby avoid having your customers get sea-sick when they look at you. Always carry your heavy tool box in your right hand. This will straighten your body to the right, although it may cause your left foot to hang about two inches off the ground.

In my experience, if you take exactly 20 late notices from the car finance company, fold them once, and stuff them into your left shoe, then you will once again make ground contact with both feet.

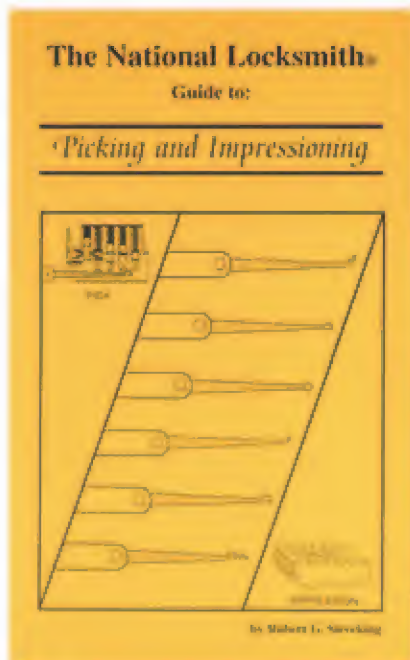
You will find at this point, that your memory may start slipping a bit, which will cause you to occasionally repeat yourself. Some people at this point also find that they are having a bit of trouble with their memory, which can lead to occasional repeating of oneself. Try not to do that.

My last bit of advice is to save for retirement. Surprisingly, if you save just \$5.00 a month starting when you are twenty-three, then you will have amassed a fortune by the time the Chicago Cubs win the World Series.

If you do, perchance, save some money, you must avoid phony investment plans, such as the classic Ponzi scheme. As an example, my brother-in-law, against my advice, gave \$50,000 to some guy named Chip, who promised him 200% return per year. When I asked my brother-in-law what this guy invested the money in, he responded, "Oh, he puts the money into unregurgitated corporate debt. And don't worry about safety, it is insured by the FDUD {Federal Department of Unregurgitated Debt}."

Needless to say, "Chip" now lives quite comfortably in Barbados, while my brother-in-law drives a Rambler and re-uses his dental floss.

Finally, with these words of wisdom firmly tucked in the dormant part of your brain, go forth young locksmiths, with your heads held high. Pursue your destiny, fight the forces of evil, while spreading peace, joy and home security through-out the land. **IRL**



Picking & Impressioning

Here is the most complete book ever published on picking and impressioning locks! You will have everything you need to know about how to open almost every kind of lock that can be picked.

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#PI



SELLING SECURITY

by Ted Tate

Sell the neighbors!

The Neighbor Alert Program. This was a program I inherited from the previous sales manager. While we sold lots of business with this one program, it was spotty when I took over. Some months zip! Other months we did very well.

I recall one sales person who sold two neighbors across the street from a new sale, then one on either side and finally the people whose back yard was against our first customer's back yard. Our installers were there so long that the people treated them like relatives!

After analyzing successes and failures, I concluded the program functioned extremely well only when sales people worked it as it was originally designed. When they tried short cuts or did it halfheartedly, it was only fair. From my original notes, here are my instructions to my sales staff fourteen years ago:

1. The use of this program is mandatory, not an option. Sales people who fail to turn in form listing a new customer's neighbors will be sent back to do so. No commissions can be paid until then, since the sale is incomplete. Finished means full names addresses and phone numbers. What the new customer can't tell you is listed in directories and it is the sales person's job to do so.


2. This applies to both business and residential.

3. Sales people must use this script, IN PERSON, no phone calls: "Good Morning, my name is _____, I'm with XYZ Security. I was just at your neighbor's _____, and they had concerns about (problem(s) stated here, NO sales talk). They have selected us to install a security system to prevent (Problem (s) stated here again, NO sales talk). An outside siren will activate in event of a problem.

As responsible business people in the community, we make every effort to see it activates only as necessary. I want to give you our business card plus a card showing emergency phone numbers to post by your phone."

There's more, but space doesn't permit it all. You get the idea? Don't act like a sales person. You're a problem solver their neighbor does business with. The only time this program doesn't work is when sales people get lazy and look for short cuts instead of performing it this way.

Good luck and good selling!

Ted Tate was in the alarm industry nearly eighteen years. He now presents in-house business training programs and is a nationally known trainer and author. For additional free selling tips visit his web site: www.trainingexpert.com 



A MAJOR

NOTICE



1. (above) American Security TL-15 rated safe.



2. (right) The two stage boltwork that had broken into two pieces.

3. (below, right) The boltbar welded back together.



by Mike Griffin

I received a call from a local Hardee's that could not lock their safe. I knew the safe was unlocked and I also knew that I needed to go and check out what the problem was before the customer caused a lock out tampering with the safe.

Upon arrival to the site, I found an American Security TL-15 rated safe. (See photograph 1.) When I approached I noticed that the back panel had already been removed. The manager was trying to lift part of the two stage boltwork that had broken into two pieces. (See photograph 2.) At this point I disassembled the boltwork which was necessary to remove the remaining bolt stage. I gave the customer the option of repairing the existing boltwork, or replacing it with a new one (Amsec Part #171). He elected to have the existing boltwork repaired, so I took the two pieces back to the warehouse and proceeded to weld them back together. (See photograph 3.)

There are a couple of important things to notice about Amsec safes featuring a two stage boltwork system of this type:

1. It is not unusual in the older models of Amsec safes for this boltwork to crack in the location shown. When servicing this type of safe, the boltwork should be inspected for cracks or breaks. If found, it should be repaired. In the newer safe models the primary plate has been made thicker to prevent this problem.

2. The boltwork retaining washers used by Amsec (Part #P0051) are almost impossible to reinstall after removal. Due to this, many times you will find missing retainer washers that were left off by service technicians in the past. I would highly recommend that anybody that does safe servicing and repair, should order a few dozen of these washers to keep on hand. **TNL**



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by
Don Dennis

It is a little bit rare and it is certainly welcomed, when a manufacturer/inventor becomes so dedicated to their product and cause that they expend enormous energy in striving towards perfection. This is the case with Ken Persson of Peterson Manufacturing. He developed his product, the Pro-1, and now spends every waking moment promoting and pursuing its perfection. (See *photograph 1.*) I have enjoyed this experience very much and for so many reasons. Let's start our adventure with the Pro-1 tool with a short explanation and then let Ken tell you about himself and the Pro-1.

I am sure there are others out there like myself. I love tools, but there is a fallacy to this entire tool habit. I have a big wooden box and inside are all of the disappointments. Yes, it was full of all sorts of things that looked great and might have worked but didn't. As I was preparing to write this article and knowing that the Pro-1 was invented to pick open and decode ACE style locks, I paid a visit to my big wooden box. I must have spent over two hours playing with all of the gizmos that didn't work. I even took the time to count the number of ACE picks in the collection. There were five.

Throughout my entire locksmithing career, I had wanted to add ACE locks as a specialty. Try as I would, I was unable to find a reliable pick. Without that the topic was dead. I

do not care what I tried or how I may have modified the picks, nothing was reliable. Nothing at all! I was unable to even have a picking average of 20%. So it was that the ACE lock job was dreaded, ignored, put off, and if at all possible, forgotten! So there beside the wooden box lay five ignored and almost forgotten tools. In my hand was the new Pro-1. This tool was supposedly capable of opening any ACE type lock. In fact it was supposed to open a 7-pin center, 7-pin left, 7-pin right, 8-pin, the smaller 0.360 barrel 7 and 6-pin, deep shrouded bicycle locks, and padlocks. One tool is to do all of that? Let's face it, my track record with ACE picks is not the best! Up until the Pro-1, I would have to buy several "picks" to even touch what this new tool claims! No matter how impressive the tool appeared, I had that track

Arresting the Tubular Keyway!



1. This is the Peterson Pro-1 pick.



2. The cylinder of PVC has a specially built holder that is held into the tub by rivets. The holder fits the tool snugly while the cylinder cap houses the accessories.

record! Read on and you will find why I wish I was but twenty years younger.

An Interview with Ken Persson

Dennis: Have you always been working as Peterson Manufacturing?

Ken: Early in my life, I was an engineering type at Xerox. I used to be pretty good at solving complicated mechanical interaction problems. Now, I am a telecommunications engineer, working with fiber optics projects used for long haul circuits. Peterson is where my creativity goes wild.

Dennis: Are you making this tool (Pro-1) at your company site or is it being outsourced?

Ken: Eighty percent of the tool components are made in South Africa. The tool's final assembly and adjustment is performed at my location.

Dennis: Why South Africa?

Ken: During the final prototype development, I was working in South Africa. As such, my final prototypes and production tooling were manufactured there. We are very happy with our shop there and see no reason to change.

Dennis: Since you are outsourcing, I would think that you have learned a great deal from the experience. What has been the most interesting part of the experience?

Ken: Finding people you can trust and communicate with is always the most important part of any endeavor. But the most important part prior to that is figuring how to find any of the right people, and what they are called. "Mining information" is what this process is called, and it can be very challenging.

Dennis: What part do you play in the tool's assembly at your location?

Ken: We do all of the final assembly and adjustments and packaging. I personally "touch" each of the units several times during the process.

Dennis: I like the fact that you have developed one tool for so many different applications. The key for this idea is in the tip development. How are the interchangeable tips made and of what composition?

Ken: The KeyTips are poured from silicon bronze. We have made masters (which need to be sized for shrinkage), and then a mold is made so that the lost wax process can make the parts. Castings are then reformed. They are then turned on the lathe for accuracy and then de-burred. Parts are then "polished" in a vibrator polisher.

Dennis: How did you come up with the idea for the Pro-1?

Ken: My friend Leo Rick is a third generation locksmith. He showed me another ACE type pick perhaps 25 years ago. Leo was complaining that he had spent good money for it, but he could not get it to work. I started to ask him questions about what it should do, and he piqued my interest in exactly how ACE type locks worked.

Dennis: How long have you been working on its development?

Ken: I spent about 3-6 months looking at processes where I could cut key blanks to allow the feeding of a wire, and developed my approximate dial in approach, then I ran out of money. I went back to living life "normally" but would mentally work on the pick in bed before going to sleep. Finally, when I crushed my knee in a motorcycle accident, I had my wife bring me my laptop computer to the hospital. I detailed out the first prototype. Three years later and the rest is history.

Dennis: What has been the most challenging part of inventing the Pro-1?

Ken: There are too many to lists. For example even today there are experts in manufacturing by the lost wax process that adamantly argue that my KeyTips are absolutely impossible to cast. Showing them the finished product does not change their mind. With that said, the most difficult problem is to find the positive people (eagles) that can help you. At the same time, you need to avoid the ducks that will assure you that something will not work. Biggest problem, dealing with the ducks!

Dennis: The carrying case for the Pro-1 is very substantial and cleverly made. How did that idea come about? (See photograph 2.)

Ken: I hate tool cases that do not live up to the life of the tool. We have all purchased tools, which now have broken hinges on the case, latches missing, or the case has just plain disintegrated. Additionally, we were looking for a case that the locksmith could throw in their truck, or drop, without suffering a substantial loss.

Dennis: I know that this tool (Pro-1) is just beginning to get off the ground when it comes to marketing and seeing a return on your investment. Is there, as of yet, another tool concept that you may be working on?

Ken: I am continuing to look at all opportunities for my current tool. An

example would be to make a tip that would take care of the shield of Greenwald Box lock shields on washers and dryers. I am working on that now. I have also been looking at the car industry use of transponders. I have a couple of thoughts in other industry areas as well.

What's Included with the Pro-1 tool:

1. Video Instructional Tape
2. Instructional Manual
3. Complete Tool Kit
4. Pro-1 Hand Tool
5. Eighth Wire
6. Two tips (7 & 8 Wire Key Tip)
7. Allen Wrenches (for changing collar and tips)
8. Collar (if left off the standard tip you can then pick deep shrouded bike locks)
9. Decoder Gauge
10. A Registration Card, which once sent in, will give you an additional free tip (either the 0.360 diameter or the padlock tip). (See photograph 3.)

Picking the Lock

As with any tool there is a learning curve that must take place. If you can recall the time when you began to pick locks, there was a learning curve. This learning curve must be revisited. This time, however, you have experience already on your side.

When you pick a standard pin tumbler lock you know already that the secret is in the tension. Light tension as you begin to work each tumbler. You are working the tumbler with the greatest resistance. One by one you proceed. Then as the lock begins to surrender to your desires, the tension is increased ever so slightly. Then, success!

The Pro-1 is the exact same thing. Only this time you are dialing in each tumbler. You are "tapping" the wire tips to find the one that has the greatest resistance. That is the one that is binding at the sheer line. Slowly you turn the brass adjustment cap. Then there is an ever so slight give-and-click. That translates to success for that particular tumbler. This means one tumbler down and on to the next.

Start again by tapping the wire tips. Find the next tumbler that is offering the greatest resistance. Work that one down with the same dial-in technique. Finally the lock is open and you have seen success. I say finally, but in actuality, not



3. This photo shows the Allen wrenches, decoder bar and other available tips for the tool.



4. The standard tip has been installed and is being tightened by the Allen wrench through its center.

more than a couple of minutes have expired. When you receive your tool you will also receive a videotape of how to use the tool. It is very good and will also help you to shorten the learning curve that is needed. A lot of the technique is in the steady and moderate tension.

Once the lock has been picked, you will want to go through a step of fine tuning the results. As the pick starts to turn, turn it only far enough to allow the tumblers to come to rest out of their chambers and onto the lock flats between the chambers. Now you have a solid part of the lock to slowly dial the wires against the tumblers. The tumblers can go nowhere except to rest against the lock's sheer-line surface. Make certain that as you dial in the exact fit of the wire mating to the tumbler that you do not over turn the brass adjustment cap. Doing so will raise the entire tool away from the lock, resulting in a locked lock as soon as you turn the tool. Doing this properly will give you results that will allow you to go to a key machine and actually make an exact key.

The Tips

The tips are the most wonderful part of the tool other than it works as a tool should work. (See photograph 4.) In fact, Ken has done his best to create one tool that would fill all of the needs for the ACE lock concepts. Instead of having to put more money into one tool after another to meet the needs of lock variations, you buy one tool with adapters to fit the variations. For ACE locks this is new and it is good. By replacing the tip configuration, I have a "new" tool that will go from opening and decoding a standard 7-pin center ACE lock to a 7-pin American padlock.

The tip change over is very simple, almost elementary. Anything that is simple and works, in my book, is

beautiful. It truly takes no more than two minutes to change a tip and test the wires for movement. (See photograph 5.) I was a little concerned when Ken told me that the tips were made by the "lost wax process" but after seeing the results, I am no longer a doubting Thomas. The tips fit perfectly over the lock's center spindle and fit flat. This is very important to the picking process. The last thing you want is to have the tip of the tool wobbling all over the place. The fit is a terrific part of this tool's success.

My Conclusion

You can already tell from what has been said that I am very excited about the Pro-1. There are a lot of things that I could still tell you about the tool, but as always it would increase this article into a booklet. Yes, the Pro-1 is a very important addition to my toolbox. I believe that if this tool had been around twenty years ago, I would have never had a problem with working on ACE locks. I would have embraced the ACE lock concepts and security without the nagging fear of having to really do a lot of damage to a customer's property to meet the needs. For those of you that are tired of not being able to master the picking of the ACE style locks that are on the market, buy this tool! For those of you that would like to be able to pick a lock and decode the combination as



5. Here the tip is removed with the Allen wrenches in their perspective screws. The tip, which is anchored to the tool by the long Allen screw down its center, is seen with two notches on its outer rim.

fast or faster than you can drill the lock and replace it, buy this tool!

It is rare for me to become this excited at a new innovation. The older I become, the more I have the tendency to wait and be very critical. I have bought enough tools that didn't work. In all honesty, the first time that I used this tool, by following the instructions, the lock opened. I was so surprised that I dropped the tool! You would have thought that a bolt of electricity had hit me. I have a 95% opening rate so far! That is out of 40 locks of all sorts. This includes ACE Locks, generic ACE style locks, non-momentary switches, momentary switches, and American padlocks. Look at me! Dickering over a simple 5%, only 2 unopened locks! I went from a 20% rating to a 95% rating!

For more information contact Peterson Manufacturing at: (716) 385-3896 or circle 257 on Rapid Reply.

TNL

Have a Marketing Plan

by John Robert



My ideas are nothing that most people don't already know for themselves. They are just common sense and nothing more than that. Most folks do not even have a clue that they already instinctively know how to succeed.

The reason that most people don't actively think about success is that they have been taught from the time they were small that you go out, get a job, work hard, and everything will be O.K. This is a great work ethic and never to be taken lightly. Unfortunately, self-employment requires one more virtue. "A Plan!"

Most people have no idea that maybe they should have some type of plan before they jump into a new venture. It is written that Christ said in Luke 14:28 "For which of you, intending to build a tower, sitteth not down first, and counteth the cost, whether he have sufficient to finish it?" Even he knew that when man decides to start a big project, (this includes self-employment) that to continue to the end with success, he must not only plan, but also consider "Do I have what it takes to finish or face ruin."

One of the best things about self-employment is "freedom." In our businesses we have the freedom to experiment and consider what it's going to cost me. This is what marketing is all about. No boss is looking over your shoulder telling you "I didn't ask for your opinion and ideas; just do your job!" You actually get to try out new ideas and techniques to see if it brings you business.

This is how you discover what customers are wanting and needing. If it is not successful then move on to something different. Don't linger too long on something that doesn't work because a bad marketing project will cost you money. If your idea brings you money then run with it. To be successful you have to take marketing chances, however, they don't have to be expensive.

The main fear that plagues most about working for ourselves is not getting paid weekly. When we all got our first jobs we learned real fast that on Friday we got a paycheck. But what we didn't get was the knowledge of how to keep that job going everyday. Someone else did that for us. In

essence we became a dependant who hoped someone else was going to supply the work and all we have to do is show up and do it so we can get paid.

This is why it is so important that you market your business and not rely on people that say: "When we need a locksmith we'll call you!" You don't rely on the Yellow Pages. Oh No! I just blasphemed. You must rely on a daily plan to market to someone different. If you can't do it everyday then do it every other day or just once a week. But do it, and do it, and do it. When you get to that point that all your efforts seem to keep failing then market some more.

The main idea is push your business to a new height every week, month, or year. You want to know what real marketing is? Try this. Find a lockshop in your area and go to every business around that store, even if it's right next door and just give them a flyer and your business card. Let them know that if the locksmith next door is unavailable by all means to call you. Bold you think? It works.

Some will look at this and say, "I can't believe you suggested that!" My reply would be "If I don't market, I don't work, and if I don't work I don't eat." It's nothing personal, it's just business!

The idea behind marketing is "Stay ahead of the competition. Blaze a trail so to speak. You want your competition jumping out of their skins.

That's just my opinion, but I know what works for me.

Transponders



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#TS - 2001

by Nelson Rivera

Opening the Toyota Echo



1. The new Toyota Echo.

Well they've done it again: It seems as if every year the people at Toyota come out with a new vehicle or two. Virtually every time, these new cars instantly become big sellers. There is no doubt that somewhere, sometime really soon (if it has not happened already) you will get a call to unlock one of the new Toyota Echos. (See photograph 1.) While similar in size and appearance to the old Toyota Tercel, the lock mechanism on the Echo is totally different than its predecessor.

As most locksmiths are aware, Toyota is masterful at shielding their lock mechanisms. They can cover up their linkages unlike any other manufacturer. In several of their models, Toyota has gone to a cable lock mechanism, making it practically impossible to unlock. I stress "practically" since car opening companies always find a way around these apparently insurmountable obstacles.

In the Echo, Toyota uses a standard horizontal linkage. The problem is

Toyota does a fine job of covering that linkage up. For this reason High Tech Tools provides three different methods to unlock this vehicle. If you are having trouble with one method, or if you are more experienced with certain methods or tools, you don't have to waste time fumbling around with a complicated task when an easier alternative is available.

Opening Method 1:

The first method uses the High Tech Tools Number 23 tool and targets the rear passenger door. The tool is inserted at the rear of the door, right where the rear quarter window molding begins. (See photograph 2.) Lower the tool into the



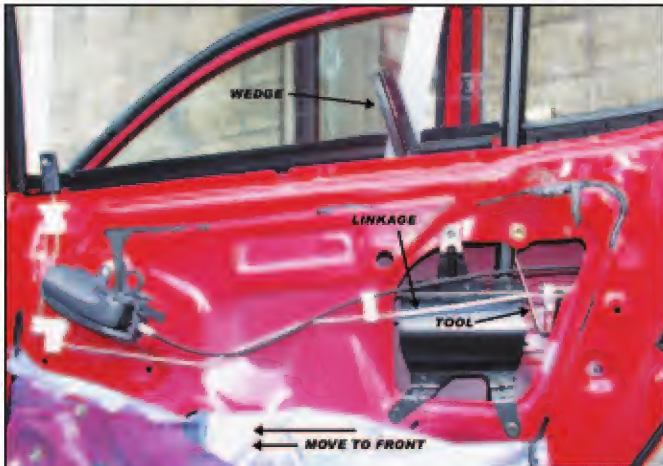
2. The tool is inserted at the rear door.



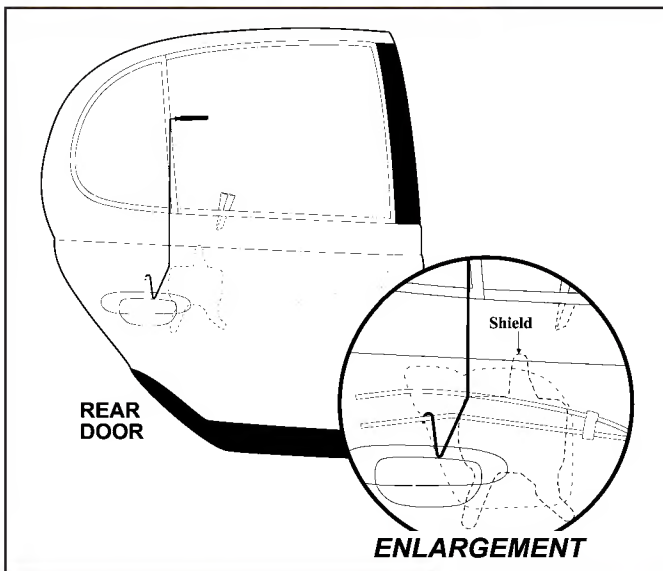
3. Lower the tool into the door.

door until the tool about half way down into the door. (See photograph 3.) In addition to the linkage running horizontally across the door, we can also see the shield protecting that linkage. (See photograph 4.) The tool must drop below the shield in order to reach the linkage. (See illustration A.)

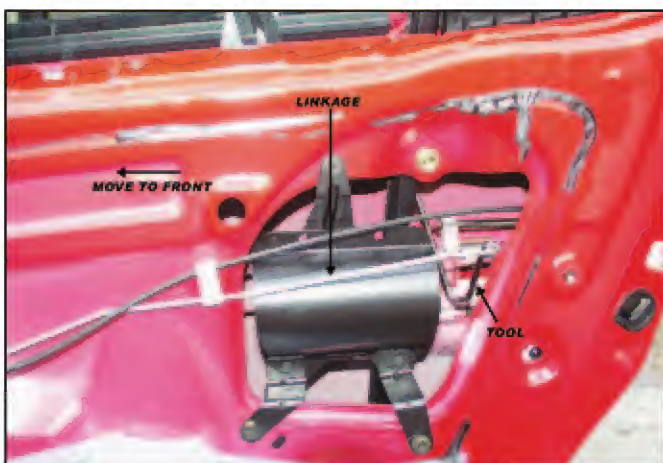
Once below the shield, turn the tool handle away from



4. The linkage is horizontal across the door.

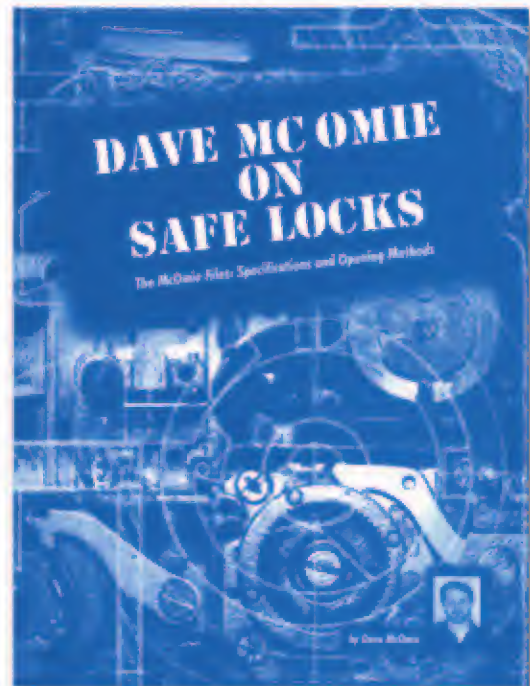


A. The tool must drop below the shield.



5. Turn the tool handle away from the vehicle.

Dave McOmie on Safe Locks



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#DMSL - 1

the vehicle so that the working end of the tool can access the linkage. (See *photograph 5.*) Next, lift the tool and turn the handle again to hook and bind the linkage. (See *photograph 6.*) Move the tool toward the front of the car to unlock the door.

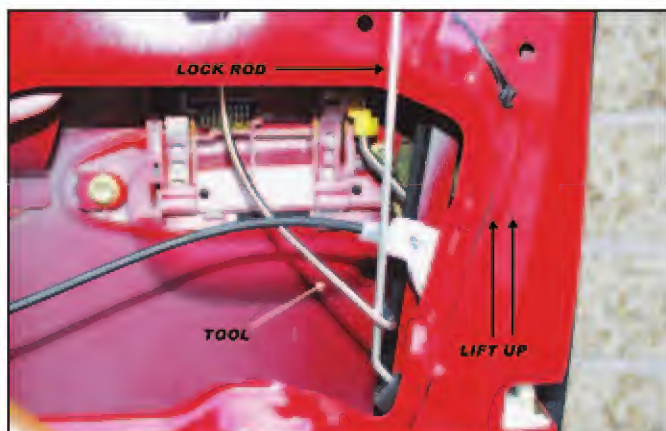
As you can see in *photograph 4*, although the lock system is essentially a horizontal linkage system, the Echo has a vertical lock button for passenger use. The vertical and horizontal systems are connected by a bell crank, whose primary job is changing the direction of movement from front to rear, to up and down.



6. Move linkage to the front of the vehicle.



7. Lower the tool into the front passenger door.



8. Tool hooks and binds the vertical linkage.

Opening Method 2:

The second opening method for the Toyota Echo uses the front door. Unlike the rear door, the linkage on the front door is wholly vertical and employs no bell crank. To unlock the Echo using this opening method, we will use the High Tech Tools Number 47 Tool, more commonly known as the 'S' tool.

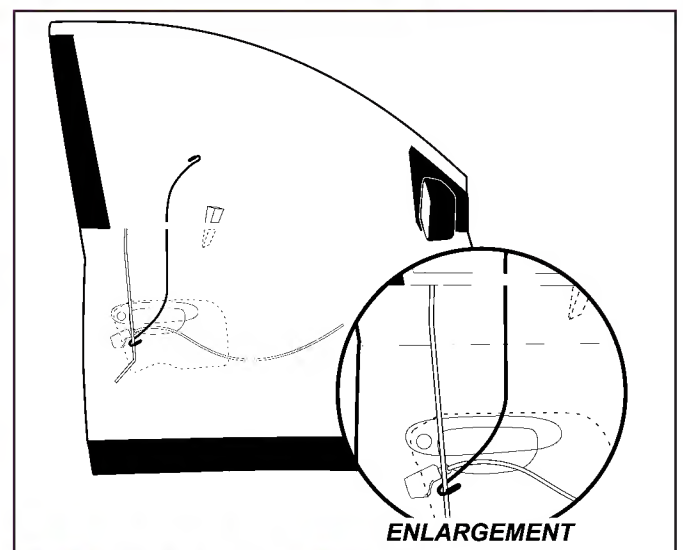
Lower the tool into the front passenger door while twisting the tip of the tool around to come behind the door lock rod and hook it. (See *photograph 7.*) In *photograph 8*, we



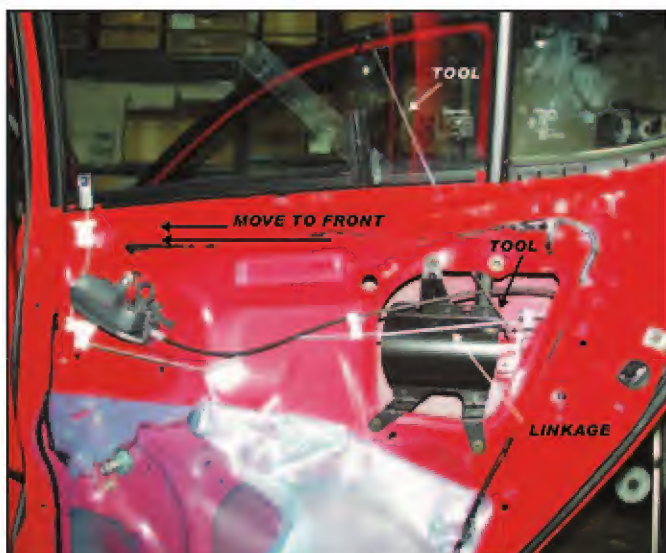
9. Lower the tool into the rear passenger door window.



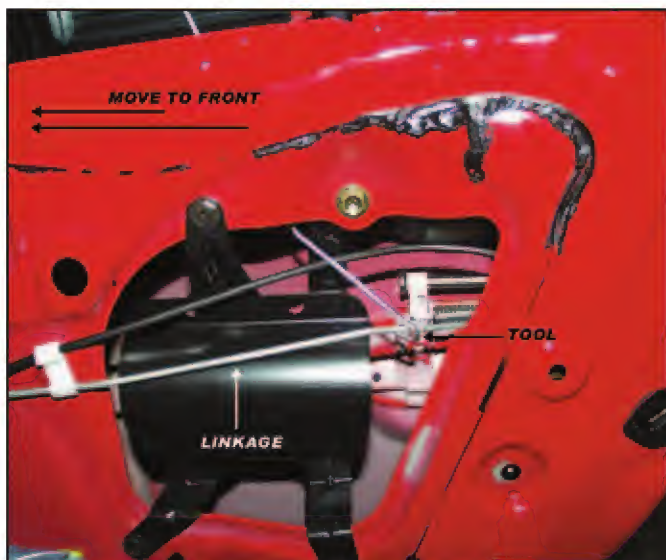
10. Lean the tool almost 45 degrees.



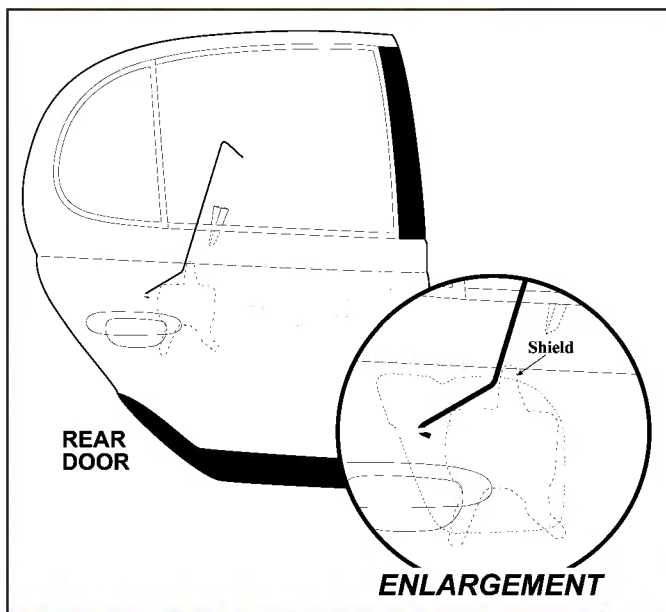
B. Lift the tool and the door is unlocked.



11. Shield protecting the linkage.



12. The tool must hook and bind the linkage.



C. The Reverse Hook Tool hooks the linkage in reverse.

can see how the working end of the 'S' tool hooks and binds the vertical linkage. Then, simply lift the tool and the door is unlocked. (See illustration B.)

Opening Method 3:

For the third and final opening method, we will be using High Tech Tools' Number 61, Reverse Hook Tool. Because the 61 tool is primarily used on horizontal linkages, we will be targeting the rear passenger door for this opening.

Just as in the first opening method, lower the tool into the rear passenger door window right at the rear quarter window partition. (See photograph 9.) Once lowered into the door, lean the tool over at almost a 45-degree angle, as shown in photograph 10.

Photograph 11, shows the opening in the door as well as the shield protecting the linkage. In photograph 12, we can see how the working end of the tool must hook and bind the linkage.

True to its name, the Reverse Hook Tool hooks the linkage in reverse order- from the top rather than from the bottom as we saw in Method 1. While most horizontal linkage bindings take place from bottom up, there may be some advantages to doing this in reverse, as in this opening method. (See illustration C.)

Next, move the tool forward to unlock the door. The diagram for this opening realistically demonstrates the correct position of the tool in the door.

For more information please contact High Tech Tools at 800-323-8324 or 1400 SW 1 street Miami, FL 33135, www.hightechnetools.com, or circle 321 on Rapid Reply. **TNL**

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#TIPS - 2



1999 Triumph

by john blankenship

Legend



1. (Left) Triumph motorcycles were very popular in the USA during the 1960's and 70's. They had financial problems and importing stopped in the early 80's. Triumph recovered and began selling motorcycles in the USA again in 1995. A new style lock was introduced on the USA models in 1997. The Legend uses this lock and is the least expensive of the eleven models sold here.

2. (Top of Page) The ignition lock is located between the handlebars and instrument panel. Although the more expensive models have locks on the gas cap and seat, the ignition lock is the only lock on this motorcycle.



The lock is shown in the "LOCK" position. Despite its off center appearance, it is not a sidebar lock. It is a unique type of wafer tumbler lock. **4.** Originating a Key — Impressioning: The best way to originate a key to this lock is to impression it. It marks the blank good and the wafers are strong. Make sure you do not push the plug in when impressioning. The plug will not turn when it is pushed in. Disassembly: The next best way to originate a key is to remove the lock and drill for the retainer so the plug can be removed for decoding. The retainer cannot be touched by a pick inside the keyway so disassembly is necessary. Reading: I was unable to read the wafers in this lock due to: 1. The lock being recessed between the handlebars and instrument panel. 2. The spring-loaded sliding dust cover is a slight problem. 3. Only a tiny portion of each wafer is visible in the keyway. 4. The wafers are the same color as the inside of the lock. Codes: There is no code on this lock and the codes are not available.

3. The lock is shown in the "OFF" position, which means the ignition is off, but the steering is not locked. A slight turn clockwise turns the ignition to "ON". To turn the lock 90-degrees counter-clockwise to the "LOCK" (steering locked) position, you need to turn the steering to the right or left, then push the plug in and allow it to spring back out before it will turn. The lock will not turn with the plug pushed in. You do not need to push the plug in prior to turning the lock from "LOCK" to "OFF". A slight turn past "LOCK" to the "PARK" position will turn on the lights so you can be seen while parked at night. The key can be removed in the "OFF", "LOCK", and "PARK" positions.



5. The blanks are only available at Triumph motorcycle dealers and one is shown on the right. It is Triumph part number 2500034-T0301 and the price is \$6.25. However, you can take an X80 Volvo blank that is shown on the left and modify it to work but it must be modified. Duplicate the original blank to an X80 by resting the lower land of both blanks on top of the jaw while keeping the thicker shoulder clear of the jaw. If you don't have an original blank, trim the tip on the X80 .920 from the shoulder. The best way to do this is to place two X80 blanks in the jaws with the lower lands resting on top of the jaws. Place the pattern blank in the jaws with the shoulder .230 from the shoulder stop. Then shoulder stop the other X80 and duplicate the tip to shorten it. Just make sure you don't duplicate the shoulder too. Then trim the width from .325 to .310 by taking .0075 off each side. The modified blank is shown in the middle. I duplicated the notches between the shoulder and bow but they are not necessary.

I impressioned a key using a modified Curtis VL-6 blank because it is brass and I have a lot of them. It impressioned well and worked the lock smoothly. I decoded it and code cut the key on the left. It worked the lock smoothly even though I did not cut the notches between the shoulder and bow. The spacing and depths are not available so I measured the original key that is shown in the middle to obtain them. There are six spaces and four depths.





7. If you need to disassemble the lock, begin by placing tape on the headlight and mounting bracket. Then place alignment marks on both pieces of tape so you can reinstall it to the same vertical alignment. Use a 13mm or 1/2" socket to remove the two acorn nuts that secure the headlight to the mounting brackets and let the headlight hang from its cables.

Use a 3mm or 9/64 hex wrench to remove the two bolts and beveled washers that secure the instrument panel. The hex wrench is in the left one and the right one is on the other side of the lock

8.



9. Allow the instrument panel to hang by its cables along with the headlight.

You now have good access to the two shear head bolts that secure the ignition lock.

10.



11. Use a Dremel with a cutting wheel to cut screwdriver slots in the two shearhead bolts. After you replace the bolts you can use a hammer and punch to close the slots and maintain security.



12. Cut the slots deep enough for a screwdriver to get a good grip on the bolts. I used channel locks on the handle of the screwdriver to break the bolts loose and then they were easily removed along with their oblong washers.

Once the bolts are removed the lock can be pulled down and out but the cable on the ignition switch prevents the lock from being completely removed. You need to remove the two small shear head bolts that secure the switch to the lock.

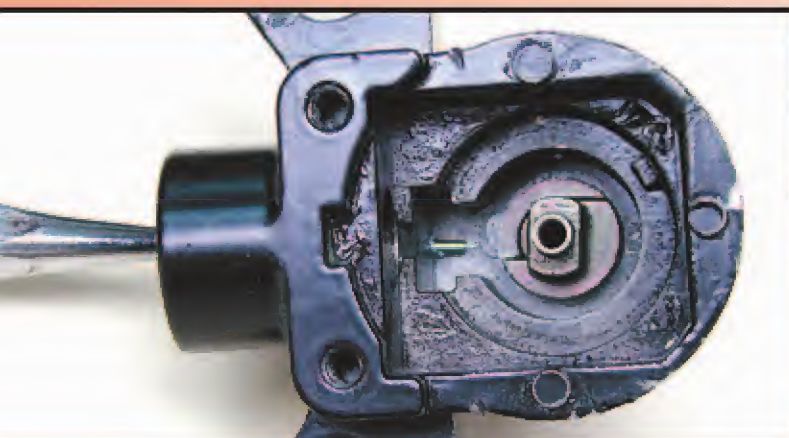
13.



14. Use a Dremel to cut screwdriver slots in the two small shear head bolts. A screwdriver easily removes the two bolts so the lock can be separated from the switch.

This shows where to drill a poke hole if the lock is in the "OFF" position. The hole should be aligned with the bottom/center of the plug, not with the keyway. To help determine the bottom of the plug, look for the word 'ZADI' stamped on the chrome facecap of the plug. The bottom is closest to the 'I' and the top is closest to the 'Z'. The retainer is 1-3/64" (26.6mm) from the face of the plug. As soon as you depress the retainer the plug will spring part way out of the cylinder due to the spring on the back of the plug.

15.

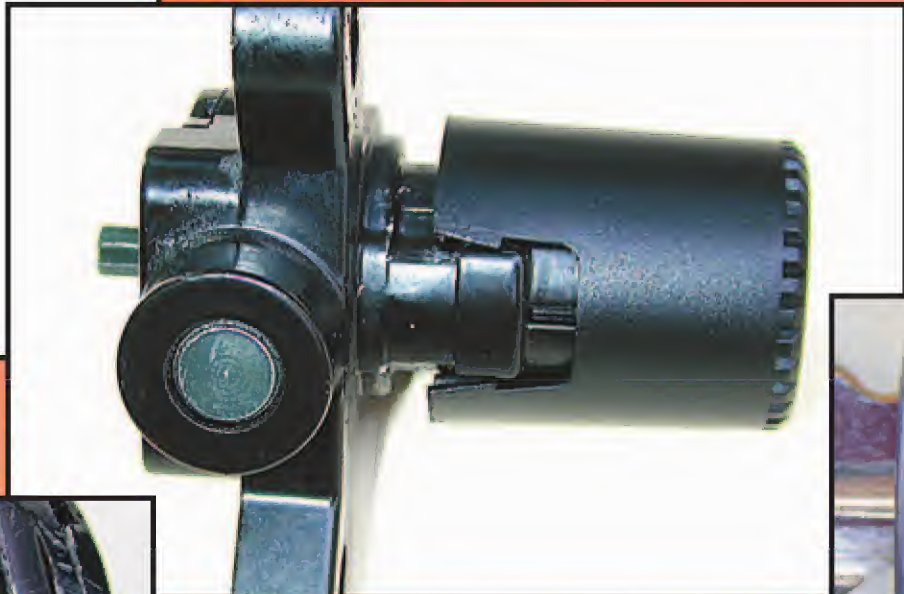


16. The punch inside the housing and almost to the retainer is shown. As you can see, the retainer is not close to the poke hole.



17. If the lock is in the "LOCK" position it is best to remove the cylinder sleeve before drilling the poke hole. Use two screwdrivers to raise the locking portions of the sleeve as shown in the photo. Twist a third screwdriver between the end of the sleeve and housing to force the sleeve forward.

The sleeve can now be pulled off of the cylinder. **18.**

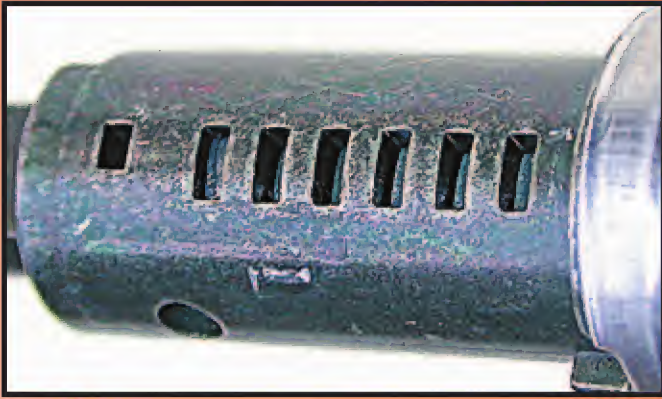


19. This photograph shows where to drill a poke hole if the lock is in the "LOCK" position. The hole should be aligned with the bottom/center of the plug, not with the keyway. The retainer is 1-3/64" (26.6mm) from the face of the plug. As soon as you depress the retainer the plug will spring part way out of the cylinder due to the spring on the back of the plug.

This photograph shows the punch inside the housing and touching the retainer. The retainer is close to the poke hole in this position. **20.**



21. The plug is shown removed and you are looking at the bottom. The spring on the back of the plug did not want to come out easily so I left it in. This lock has six wafer tumblers all on one side of the keyway plus the retainer. When reinstalling the plug in the cylinder, the retainer will contact the back of the locking groove and prevent the plug from being fully inserted. Therefore it is necessary to first use a screwdriver to turn the tailpiece to a position midway between "OFF" and "LOCK." Then insert the plug in the same position with the retainer aligned between the locking grooves. Use a pick to depress the retainer so it will enter the cylinder in this position. Then use a pick inside the keyway to retract the tumblers so the plug will slide in the rest of the way. Then turn the plug to "OFF" or "LOCK" so the key can be inserted. The plug can be inserted 180 degrees off, so be sure the retainer is on the lower right of the cylinder when installing. If you install it wrong you will have to drill another poke hole to remove it again.



22. A view of the top of the plug.



23. A blank inserted into the plug shows the cuts are 213224. Notice that the notches on the blank do not enter the keyway. They serve no purpose that I can determine.

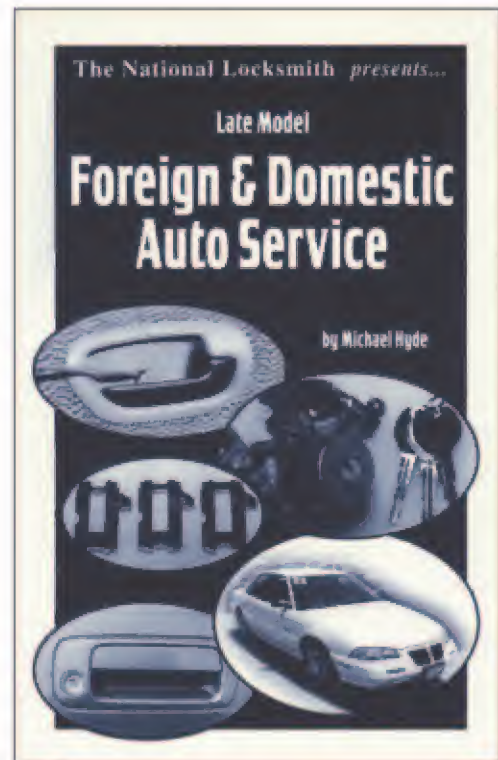


24. The wafers from right to left are depths 213224 and the retainer. We are looking at them as they are when we look at the face of the plug. I could not pull the wafers from the plug so I used a hammer and punch to force them out. It turned out that there is a tiny brass rod that runs up the center of the plug and through the holes in the center of the wafers to keep them from springing out. I sheared the rod into 15 pieces.



25. How the key contacts the wafers when inserted into the keyway.

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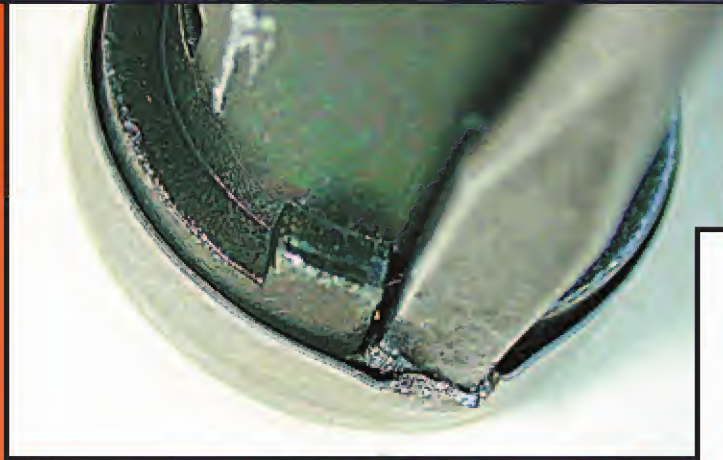


This book represents the best work of Automotive Locksmithing guru Michael Hyde, author of the famous AutoSmart.

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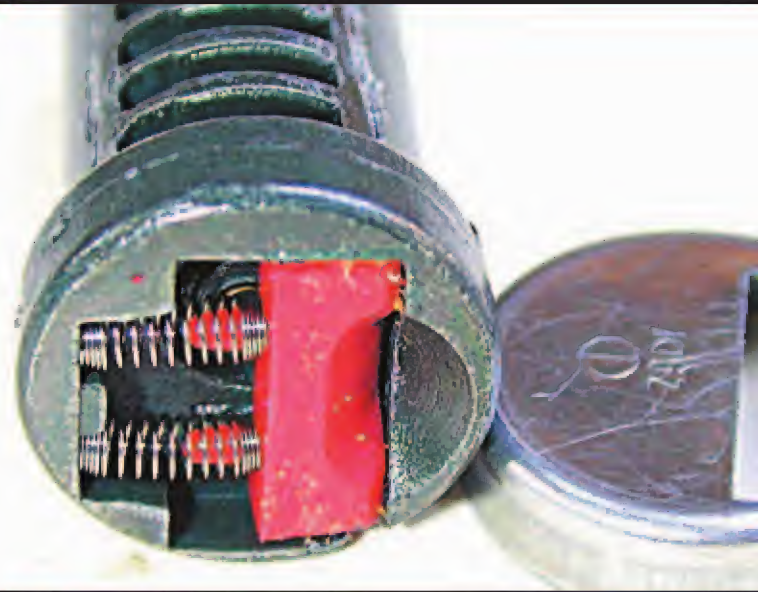
#FDAS - 1



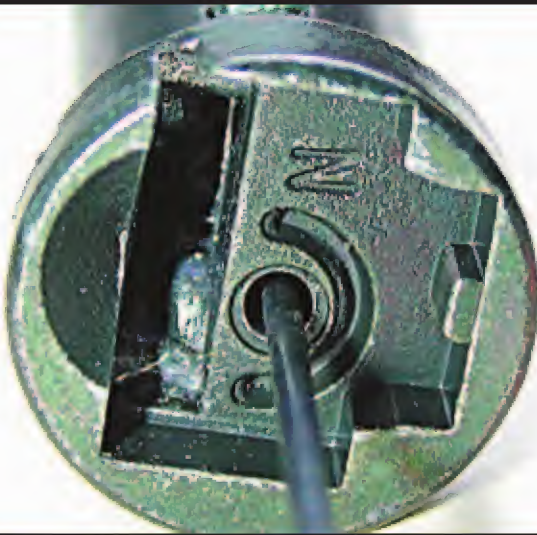
26. It is necessary to remove the facecap from the plug whenever rekeying or repairing damage to the tiny brass rod. Un-crimp the face cap by twisting a screwdriver in the two crimping slots.

The facecap is removed showing the spring-loaded sliding dust cover. It is easy to remove and replace but don't let the springs get away.

27.

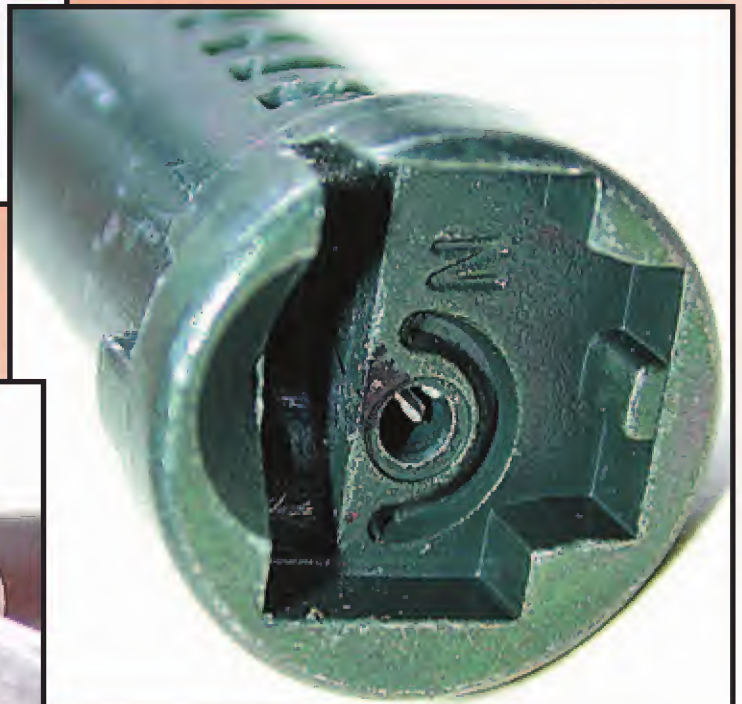


28. I replaced the tiny brass rod with a piece of .042 spring wire. I measured it, cut it off, and flattened one end with a hammer.

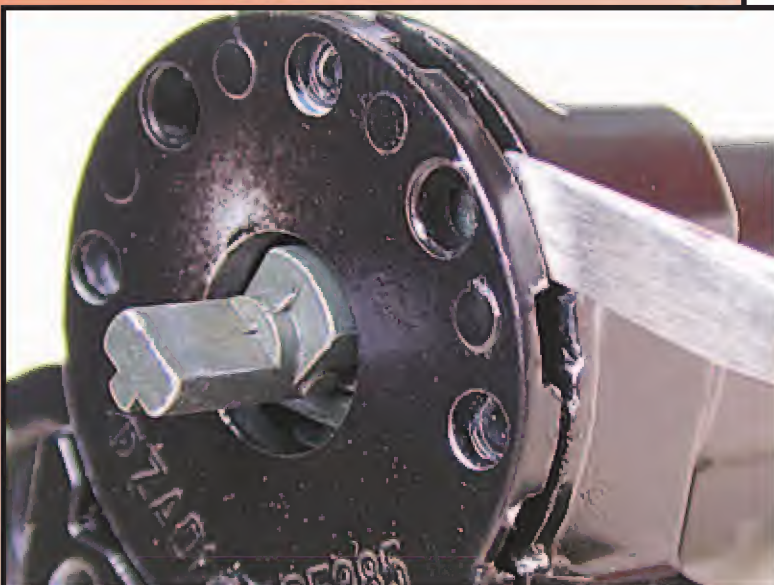


After loading the springs and wafers into the plug, I inserted the rod and tapped it in with a punch. The flattened end of the rod bit into the sides of the entrance hole and secured it.

29.



30. To disassemble the whole lock, begin by removing the backing plate. There are notches where you can insert a screwdriver and get it started. Then tap a knife blade in to spread it farther. Then insert a screwdriver so you can finish prying it off the three posts that secure it.





The bolt actuator is removed. Push the bolt down and the tailpiece can be pulled out. Then pull the bolt up and you can remove it.

32.



33. The tailpiece and bolt are removed. You can now depress the retainer and push the plug out the front of the cylinder. The 'push to lock' block is the last piece remaining in the housing. Just pull it out being careful not to lose the spring under it.



The block is removed and disassembly is complete.

34.

Replace the block with the spring down. There is a ramp that will compress the spring just by sliding it in.

35. I put a small dab of JB Kwik Weld on each of the three posts, tapped the backing plate on, and then used a spring-loaded center punch to flare each post. I then clamped it in a vice for about 10 minutes. The lock is available at Triumph motorcycle dealers. **TNL**



Ignition/Steering Lock with Switch: Part Number T2500450 Price \$178.50

Codes: Unavailable

Blank: Original - Triumph Part Number 2500034-T0301 Price \$6.25

You can modify - Ilco X80 (VL6), Curtis VL-6, Silca NE40

I measured the spacing & depths and they worked for me.

Spacing:

1 = .140 , 2 = .250 , 3 = .360 , 4 = .470 ,
5 = .580 , 6 = .690

Depths:

1 = .310 , 2 = .281 , 3 = .252 , 4 = .223

KEY CODES

The HPC 1200CMB and 1200PCH code cards for this code series are between pages 70-73.

BMW Series

BMW BH010009-BH241009, Part 1

Manufacturer: BMW

Code Series: BH010009 - BH241009

Key Blanks:

Boerkey: 1458PS

CEA: BM2P

Errebi: HF48P8

Fuki: MT-4

Ilco: S7BW-P

Ilco EZ: S7BW-P

JMA: BM5P

Kraga: AP196

Lotus: HF155S

Orion: S7BWP

RR: XPHF116

R Clover: C-5

Silca: HU58AP

Number of Cuts: 12, six on either side.

M.A.C.S.: 2

Key Gauged: Shoulder

Center of First Cut: Side A: .183 Side B: .228

Cut to Cut Spacings: .128

Cut Depth Increments: .024

Notes: Requires a side cutting milling machine to produce key.

Spacings:

A Side

1 - .183

2 - .311

3 - .439

4 - .567

5 - .695

6 - .823

Depths:

1 = .276

2 = .252

3 = .228

4 = .205

HPC 1200CMB

Code Card: N/A

Jaw: N/A

Cutter: N/A

Gauge From:

B Side

.228

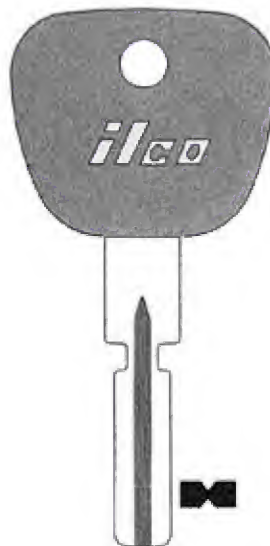
.356

.484

.612

.740

.868



HPC 1200PCH (Punch):

PCH Card: N/A

Punch: N/A

Jaw: N/A

Silca UnoCode

Card Number: N/A

HPC CodeMax

DSD #: N/A

Jaw: N/A

Cutter: N/A

Curtis No. 15 Code Cutter:

Cam-Set: N/A

Carriage: N/A

Framon #2:

Cuts Start at: N/A

Spacing: N/A

Block #: N/A

Depth Increments: N/A

Cutter: N/A

Key Clamping Info: N/A

A-1 Pack-A-Punch

Quick Change Kit: N/A

Punch: N/A

Die: N/A

ITL 9000 & 950

Manufacturer ID: N/A

BH010001 331131-442132
BH010002 212431-442232
BH010003 131131-334332
BH010004 442231-134332
BH010005 342131-121132
BH010006 123431-121332
BH010007 322131-244332
BH010008 311231-342132
BH010009 212131-244332
BH010010 413231-443232
BH010011 312231-442132
BH010012 211131-413232
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BH010210 123131-424432

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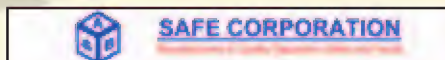
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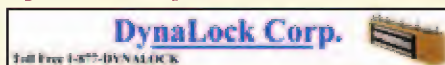
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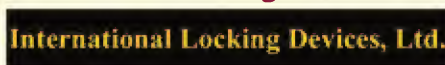
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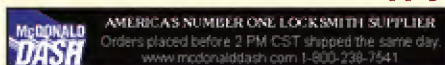
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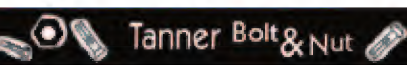


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WEB REVIEW

Tanner Bolt & Nut Corp.

<http://www.tannerbolt.com>



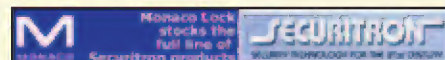
As most locksmiths know, one of the weakest links in the security chain can often be the unloved, overlooked screws and fasteners which hold the whole system together. Fortunately, there is a solution to this problem for installations that require an economical alternative to traditional, unsecured screws.

Tanner Bolt & Nut Corp. of Brooklyn, NY has long specialized in security screws and fasteners. In fact, they are quite familiar with the locksmith trade and on their web site, not only can you quickly view every security fastener known to man, but you can also view a catalog especially designed for locksmiths.

On top of that, you can even download the catalog for later reference. Of course, sometimes the problem you face may be the need to remove a security screw. That's where Tanner's tools can come in very handy. They carry the full Torx line, plus every other removal tool you could possibly want, and it's all easily viewed on their web site.

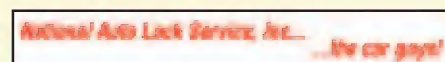


Monaco Lock



<http://www.monacolock.com>

National Auto Lock Service, Inc.



<http://www.laserkey.com>

Omaha Wholesale Hardware



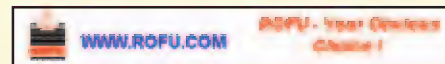
<http://www.omahawh.com>

RA Lock Co.



<http://www.rlindustries.com>

ROFU International Corp.



<http://www.rofu.com>

Security Resources, Inc.



<http://www.techtrainproductions.com>

ShatterGard Security Window Film



<http://www.shattergard.com>

Sieveking Products Co.



<http://www.sievekingprodco.com>

Wadsworth-White Wholesale



<http://www.wadsworthwhite.com>

Manufacturers and distributors... join the high profile locksmith web site and you'll be featured here!
Call Jeff Adair (ext. 15) or Debbie Schertzing (ext. 16) for details. (630) 837-2044

July 2000 • 215

**Taking
Industry Products
for a**

TEST DRIVE!

Videx has introduced a very unique product that with a little creative thinking, can be used in a number of applications. In the age of user identification and authorization, Videx developed the TouchAccess, an intelligent lock that is easy to install on cabinets, file drawers and storage closets. The TouchAccess is basically a surface mounted rim lock without a key cylinder. Instead of using a traditional key to unlock the unit, a Dallas Semiconductor electronic button is placed against a reader to verify access. The Dallas Semiconductor electronic button also eliminates the ability to duplicate keys.

When an authorized user touches the lock with their key, their key ID is recorded in the lock with the current date and time. Any attempt to open the lock without an authorized key can trigger a local alarm, will be recorded on the audit trail and the lock will remain locked. The TouchAccess can also be programmed to require two, three or four keys for an authorized opening. This eliminates the ability of just one person being able to open the lock.

Time scheduling is also possible with the TouchAccess, in which various time zones are set for each individual user. This would allow that user to access the lock only during their scheduled time zone window. Attempts to access the lock outside the allotted time zone would be recorded and denied. Holidays and non-work days can also be easily blocked out.

With the use of a Palm III or

TouchAccess by Videx



Palm V handheld organizer and the Videx AuditLink software, through an infrared connection a comprehensive audit trail can be retrieved from the lock and stored for review. The audit trail gives such information as: the users name, the lock recorded, the date, time, events that occurred and the status or type of activity. The audit capability allows one to monitor access, pinpoint common use patterns and identify problems should they arise.

LOCK SPECIFICATIONS:

Physical: All metal construction:

Dimensions: 5" x 2.6" x 1.3" footprint.

Weight: 15 ounces

Indicators: LED, local alarm greater than 110db.

Capacity: Master Key, 524 access keys, 526 access events.

Clock: real-time clock.

Event Log: Key ID event type, date and time.

Access Modes: Up to four keys.

Keys: Dallas Semiconductor Touch Memory buttons.

Lock: Mechanical

Timed Access: Programmable access times and days.

Data Transfer: Infrared connection to Palm III or Palm V.

Battery Life: Up to 1 year or 10,000 openings with 9-volt alkaline battery. Up to 2 years or 20,000 openings with 9-volt lithium battery.

PRICE:

The TouchAccess is \$295.00.


The AuditLink

software needed to perform an audit trail is \$190.00. The Dallas Semiconductor memory buttons are \$3.15 each.

CONCLUSION:

This is a very interesting product that can be used in a number of unique applications. It features a hook bolt design that interlocks with the strike receptacle. Because of its surface rim mounted design and hook bolt, it can be installed on just about anything. There is also a TouchAccess that can be used in conjunction with Multi-Lock file cabinet locking bars. This set-up allows access control and audit trail capabilities on file cabinets.

If you have a situation where key control, electronic security, time windows and audit trail capabilities is required, the TouchAccess may be just the thing.

For more information on the Videx TouchAccess call: (541) 758-0521; Fax: (541) 752-5285; Web: www.videx.com E-mail: sales@videx.com. Circle 317 on Rapid Reply. 

IN SUMMARY:

DESCRIPTION: TouchAccess is a surface mounted electronic access control lock.

PRICE: \$295.00

COMMENTS: Features a Dallas Semiconductor key button, time windows and audit capabilities.

TEST DRIVE RESULTS: Can be installed just about anywhere key control, time windows and an audit trail is needed.